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DRINKING AND STUDENT UNDERSTANDING OF ALCOHOL AND ALCOHOLISM IN SELECTED HIGH SCHOOLS OF UTAH.

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THIS TWO PART STUDY ASSESSED THE EXTENT OF DRINKING AMONG REPRESENTATIVE HIGH SCHOOL STUDENTS AND THEIR SOURCES OF ALCOHOL, DETERMINED THE KINDS OF INFORMATION ABOUT ALCOHOL HELD BY HIGH SCHOOL STUDENTS IN GENERAL, AND SURVEYED THE KNOWLEDGE AND BACKGROUNDS OF TEACHERS WHO TEACH ABOUT ALCOHOL IN THEIR CLASSES. FOR THE FIRST PART OF THE STUDY, SENIOR STUDENTS IN NINE HIGH SCHOOLS IN UTAH COMPLETED A QUESTIONNAIRE CONCERNED WITH PERSONAL DATA, DRINKING BACKGROUND, AND SOURCES OF ALCOHOL. THE DATA FROM THE FIRST QUESTIONNAIRE IS ORGANIZED ON THE BASIS OF THE RELATIONSHIPS OF THE QUESTIONS, PRESENTED AS PERCENTAGES, AND DISCUSSED. FOR THE SECOND PART OF THE STUDY, 40 TEACHERS AND THE STUDENT SAMPLE ANSWERED QUESTIONS SELECTED FROM THE ALCOHOL EDUCATION QUIZ. ANSWERS ARE TABULATED IN TERMS OF THE TOTAL NUMBER AND PERCENTAGES OF STUDENTS AND TEACHERS ANSWERING TRUE, FALSE, OR UNDECIDED. TEACHER ATTITUDES TOWARD ALCOHOL AND THEIR RESPONSES TO SELECTED ALCOHOL KNOWLEDGE QUESTIONS ARE ANALYZED, AND THE RELATIONSHIP BETWEEN TEACHER AND STUDENT ANSWERS ARE DISCUSSED. (SK)

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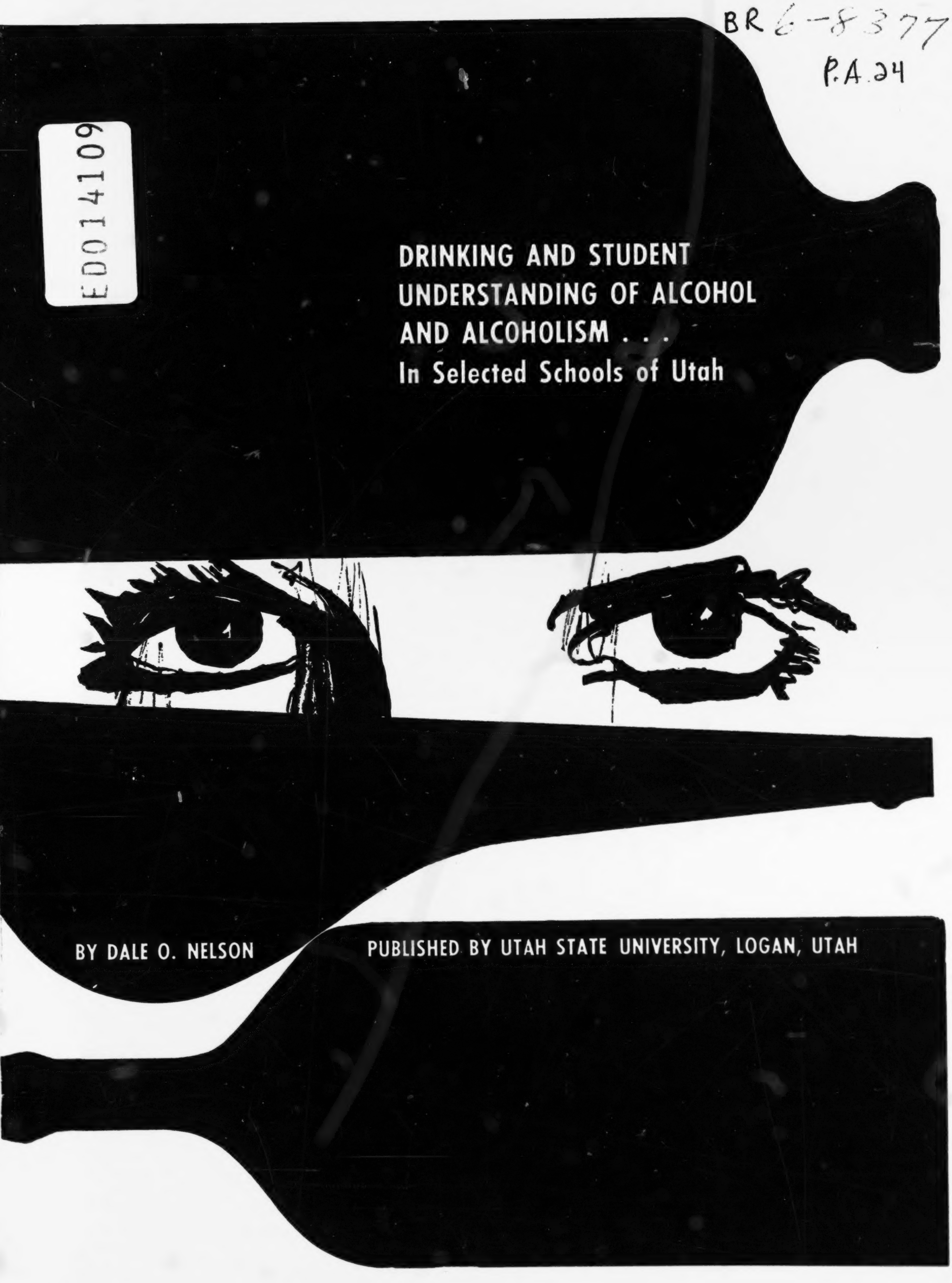

DRINKING AND STUDENT UNDERSTANDING OF ALCOHOL AND ALCOHOLISM . . .

In Selected Schools of Utah

BY DALE O. NELSON

PUBLISHED BY UTAH STATE UNIVERSITY, LOGAN, UTAH

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DRINKING AND STUDENT UNDERSTANDING OF ALCOHOL AND ALCOHOLISM IN SELECTED HIGH SCHOOLS OF UTAH

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THE EXTENT OF DRINKING AMONG REPRESENTATIVE HIGH SCHOOL STUDENTS IN UTAH AND THEIR SOURCE OF ALCOHOL

Introduction

The great majority of U. S. citizens over 15 years of age drink alcoholic beverages to some extent. Mulford (7), in a 1963 representative national survey, found that 71 per cent or 80 million American adults (21 or over) drank alcoholic beverages. In 1946 the figure had been 65 per cent. The largest increase was in the youngest age group of women (21-25). The rate of drinkers among men age 21-25 (82 per cent) was the same as in 1946, but the rate among women increased 12 per cent. One might logically conclude that the incidence of drinking is also high among teen-agers, and that girls are increasing their drinking in high school.

For most individuals, this learned social activity creates only minor problems. Some, however, have alcohol-associated problems of such a magnitude that numerous other people are affected either directly or indirectly. Carefully designed programs of education aimed at the adolescent public school population can help prevent alcohol and drinking problems in adults.

The extent of drinking among adolescents has been studied in some sections of the United States, but additional regional surveys are needed to test the general applicability of the findings. Also, shifts in population and changing social practices make it necessary to up-date the older studies.

In 1951 Slater (8) studied five high schools in different parts of Utah and found that 20 per cent of the girls and 44 per cent of the boys reported that they sometimes drank alcoholic beverages. The mean age at first drinking for both boys and girls was 14. 5 years, but many reported having been introduced to alcoholic beverages before the age of twelve. In 1957 Jones (3) surveyed 19 high schools in Utah and found that 71. 4 per cent of the students had tasted alcohol. Three and nine-tenths per cent drank once a week or more often. Fifty-nine per cent classified themselves as never drinking, while 23. 5 per cent drank "very, very seldom," and 10. 8 per cent drank only on special occasions. Thus 96. 3 per cent drank very little. Twenty-four students drank nearly every day.

A comparison of the high school classes surveyed in the 1957 Utah study revealed that 62. 2 per cent of the sophomores never drank; comparable percentages were 56. 1 among juniors and 55. 3 among seniors. The percentages of students who admitted to having been intoxicated were: sophomores, 14. 5; juniors, 21. 0; and seniors, 25. 2. The incidence of drunkenness was more prevalent among seniors than any other high school group. About one per cent of the juniors and seniors drank nearly every day. This is compared with 0.6 per cent of the sophomores.

Globetti (2) found that only 11 per cent of the students in two Mississippi communities drank as frequently as once a week. While 19 per cent replied that they used alcohol as often as once or twice a month. The vast majority of student drinkers reported that they used alcoholic beverages infrequently. The proportions of users in the Mississippi population appears to be lower than that reported in two other studies (6) - (1), but the sampling of grades could account for the differences. Generally, drinking increases with the increase in age of the students.

It can be concluded from the literature that drinking generally is increasing in the United States. By contrast, Utah appears to show a decrease in per capita consumption during the past decade. This could be due to the unusual cultural characteristics of Utah and her citizens resulting from the strong influence of the Church of Jesus Christ of Latter-day Saints (Mormon Church) which teaches total abstinence from alcoholic beverages. In any case, the state constitutes a valuable survey area.

Objectives of the Study

The objectives of the complete study reported here were to:

1. Assess the extent of drinking among representative high school students in Utah and their sources of alcohol.
2. Determine what information high school students in general have about alcohol and alcoholism, where this was obtained, and the creditability of the information.
3. Survey the relevant knowledge and backgrounds of health teachers and others who teach about alcohol in their classes.
   Note: This part of the report is only concerned with the first objective.

Procedures

The sample was to be drawn from senior students in nine selected high schools along the Wasatch Front in Utah from Smithfield on the north to Provo on the south. Only senior students were surveyed because all such students have had health classes, and this age group is the one in which the heaviest drinking takes place. The samples were of sufficient size to make the data reliable.

Two different questionnaires were prepared with each to be submitted to students at each school. Two schools, however, were unwilling to submit the questionnaire concerned with personal data and drinking, so the information on these topics came from seven rather than nine schools. There were approximately 1325 students (seven schools) who completed the questionnaire concerned with drinking and sources of alcohol and approximately 1950 students (nine schools) who completed the questionnaire concerned with knowledge of alcohol and alcoholism. The questionnaires were distributed in home rooms under the direction of the research team in some schools, and to all seniors in a group assembly in other schools. The schools differed in their ability to accommodate the study. Too much data was requested for all students to complete both questionnaires. Therefore, one-half of the students at each school completed the questionnaire concerned with personal data and drinking, and the other half completed the alcohol and alcoholism knowledge questionnaire. The distribution of every other person also helped discourage cheating. Forty health and driver education teachers representing all schools completed the questionnaire designed for them. Not all teachers and students responded to every question. Consequently, the totals vary from question to question.

Analysis of Data

The questionnaire concerned with personal data, drinking background, and sources of alcohol contained certain questions that were interrelated. The organization of the data as used here is based on the relationship of the questions in most cases. Where no obvious relationship existed, the questions and answers have been arbitrarily placed.

The first drink

1. Have you ever drunk an alcoholic beverage?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	519	69	337	60	856	65
No	231	30	225	39	456	34
No Answer	4	1	1	1	5	1

Discussion

Sixty-five per cent of the 1966 senior students surveyed have drunk an alcoholic beverage. This represents 69 per cent of the boys and 60 per cent of the girls.

In 1957 Jones (3) surveyed 19 high schools in Utah and found that 71.4 per cent of the students had tasted alcohol. It is difficult to compare other statistics on drinking as this question was only concerned with having tasted or drunk an alcoholic beverage. Most information available has to do with the number of people who drink. The most recent (1963) representative national survey (7) indicated that 71 per cent of the population between the ages of 21 and 65 drink alcoholic beverages. This is approximately 80 million adult Americans 21 years and over, and about 90 million people if the ages are between 15 and 65 years.

2. At what age did you take your first drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
11 years or younger	83	17	33	11	116	15
12 years of age	36	7	19	7	55	7
13 years of age	41	8	17	5	58	8
14 years of age	62	13	34	12	96	12
15 years of age	88	18	44	15	132	17
16 years of age	104	21	72	25	176	22
17 years of age	73	15	63	22	136	17
18 years of age	9	1	8	3	17	2

Discussion

The average age of taking the first drink was 14.56 years. It was 14.38 for the boys and 15.22 for the girls. There were 205 more boys than girls who answered this question.

In 1951 Slater (8) studied five high schools in different parts of Utah and found the mean age at first drinking for both boys and girls to be 14.5 years which is the same as the present study. In 1957 Jones (3) surveyed 19 high schools in Utah and found the average beginning age to be 15.4 years. Other studies in the United States tend to agree that the 13th or 14th years, the year they enter high school or late junior high school, is the most common time at which people drink for the first time. In Utah students apparently taste alcohol later than the average of the country.

It is interesting to note that 15 per cent of this sample of Utah students tasted alcohol when they were 11 years or younger. The big percentages appear to be during the years 14, 15, 16, and 17 which are the high school years. The 40 teachers were also asked this question, and their average age of taking the first drink was eighteen. It may have been that their memories were a little bad or that times have changed since they were young.

3. What was the first kind of alcoholic beverage you drank?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Beer	256	59	121	41	377	51
Wine	44	10	56	19	100	14
Whiskey	96	22	79	26	175	24
Other	39	9	42	14	81	11

Discussion

Beer was the most popular first alcoholic drink for those who have tasted alcohol (51 per cent). Since beer is the easiest of the beverages to obtain, this result was expected. This was followed by whiskey or some other distilled beverage, and wine which seems to be the least popular. Apparently, however, many of the girls took their first drink in the company of boys who were beyond their first drinking experience and were consuming stronger spirits than beer. This conclusion is supported by the fact that the boys reported taking their first drink at an earlier age than did the girls. See the answers to question six for additional evidence.

4. Where did you have your first drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Own home	122	29	100	34	222	31
Home of a friend	85	20	76	25	161	23
Restaurant, tavern or bar	7	2	9	3	16	2
Night club	4	1	3	1	7	1
Automobile	122	29	63	21	185	26
Private club	7	2	8	3	15	2
High school dance	6	2	2	1	8	1
Others	64	15	37	12	101	14

Discussion

The places where the first drink was taken, in order of frequency, were: own home (31 per cent), automobile (26 per cent), and home of a friend (23 per cent). One can deduce that most of the experimentation came with the alcoholic beverages kept in the home by the parents, and the drinking was very likely unknown to the parents. It is interesting to note, however, that 26 per cent of those first drinks were in an automobile.

Some consideration must be given to Utah's unique conditions of being strongly influenced by the Church of Jesus Christ of Latter-day Saints (Mormon Church) which teaches total abstinence from alcoholic beverages, and the predominately rural aspect of much of the survey area. This could conceivably bias the data when compared to other sections of the country.

5. How did you obtain the alcoholic beverage for your first drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Bought it myself	19	5	2	1	21	3
Stole it	25	6	4	1	29	4
Friend gave it to me	152	37	132	45	284	40
Parents gave it to me	82	20	80	27	162	23
Older person bought it	91	22	29	10	120	17
Relative gave it to me	24	5	30	10	54	7
Other	22	5	19	6	41	6

Discussion

The most often named source of the first drink was a friend (40 per cent), followed by parents (23 per cent), and an older person (17 per cent). Friends and parents were the best sources, particularly for the girls. In the case of parents, it seems likely that they gave the children just a taste rather than any large amount.

6. Whom were you with when you drank it?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Parents	89	21	98	28	187	24
Boy friends	267	63	101	29	368	47
Girl friends	26	6	119	34	145	19
Alone	23	5	11	3	34	4
Other	23	5	21	6	44	6

Discussion

The interesting point here is that 63 per cent of the boys were with boy friends and 34 per cent of the girls were with girl friends; 34 per cent of the girls were with boy friends and only six per cent of the boys were with girl friends for their first drink. A total of 23 per cent of the students were with their parents for their first drink which corresponds with the 23 per cent in the preceding question when the parents gave it to them.

7. Did you drink with your parents' permission?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	94	24	104	37	198	29
No	283	72	177	63	460	68
No reply	17	4	0	0	17	3

Discussion

Sixty-eight per cent drank without their parents' permission. Apparently some who drank with parent's permission did not drink in the presence of their parents, because 29 per cent drank with parents' permission, yet only 23 per cent said the parents gave it to them.

Frequency of drinking and intoxication

8. About how frequently do you drink alcoholic beverages on the average?

	Boys	Per cent	Girls	Per Cent	Total	Per cent
I don't drink	228	43	328	68	556	55
Once or twice a year	69	13	52	11	121	12
Once every 4 or 5 months	20	4	15	3	35	3
Once every 2 or 3 months	39	7	23	5	62	6
Once a month	23	4	15	3	38	4
Twice a month	33	6	14	3	47	5
Three times a month	27	5	15	3	42	4
Once a week	41	8	10	2	51	5
Several times a week	46	8	5	1	51	5
No answer	9	2	3	1	51	1

Discussion

Fifty-five per cent of the students indicated that they do not drink. Forty-three per cent of the boys and 68 per cent of the girls don't drink. Of the 45 per cent who do drink, 21 per cent drink once every two or three months or less. This indicates that high school drinking is not heavy or frequent. Studies by Maddox (5) confirm this observation. There should be some concern, however, in that 102 of the 1015 students (87 boys and 15 girls) drink once a week or several times a week.

In 1957 Jones (3) found that four per cent of the students questioned drank once a week or more often. The present 1966 study found 10 per cent drinking this often, which is a considerable increase if the samples are representative of the state. Jones' study has 59 per cent classifying themselves as never drinking, which is higher than the 55 per cent in this study and also indicates increased drinking in Utah. Available statistics for areas outside of Utah show that 11 per cent of the students in two Mississippi communities drank as frequently as once a week (2). This is slightly higher than the 10 per cent in the present Utah study. The Mississippi study also found that the vast majority of students use alcoholic beverages infrequently.

9. Have you ever been intoxicated?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Not at all	157	37	334	70	491	54
One time	68	16	67	14	135	15
Several times	115	26	51	11	166	18
Many times	84	18	10	2	95	10
No answer	15	3	13	3	28	3

Discussion

The difficulty with the question of intoxication is the different interpretations placed upon it. Many young people think that intoxication is nearly passing out or not having much physical or emotional control. The fact is that intoxication begins when the first drop of alcohol enters the blood stream and is carried to the brain. The person doing the drinking is almost always the poorest judge of whether or not he is intoxicated. At any rate, 28 per cent of the students who said they drink, reported having been intoxicated "several" or "many" times and 15 per cent only one time.

It should be noted that more students said several times than many times, which may indicate that drinking for the most part is not heavy. One must remember these senior students who, on the average, started drinking about three years earlier. The boys in the study were much heavier drinkers than the girls. Only 13 per cent of the girls indicated they had been intoxicated more than once.

It is difficult to compare different studies on drinking and intoxication frequencies because the questions are usually worded differently. In the 1957 Jones study (3), 59 per cent of those samples classified themselves as never drinking, while 24 per cent drank "very, very seldom," and 11 per cent drank only on special occasions. Thus, 96 per cent drank very little, unless there were very many special occasions which students might create. In the same study, the percentages of the students who had been intoxicated were: 14.5; junior, 21.0; and seniors, 25.2. All of these figures indicate increased drinking with each advancing grade, and the 1966 study shows increased drinking when compared with earlier studies in Utah. The national situation as evidenced by reports in the literature substantiates such a trend.

10. If so, did intoxication occur the first time you tried drinking?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	66	27	50	28	136	31
No	233	73	128	72	307	69

Discussion

Of those who had tried drinking, 31 per cent indicated they were intoxicated the first time. The percentages of boys and girls were about the same, 27 and 28 per cent respectively. Whether the judgment of intoxication was good or bad, one can only venture a guess, but it is assumed that the drinking was not heavy with the first attempt.

11. Do your parents know that you drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	132	46	57	40	189	44
No	155	54	84	60	239	56

12. If "yes," do they approve of your drinking?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	19	14	17	30	36	19
No	89	68	20	35	109	58
Don't know	24	18	20	35	44	23

Discussion

Of those students who drank, 56 per cent were doing so without their parents' knowledge. A larger percentage of girls (60 per cent) drink without their parents' knowledge than boys (54 per cent). Where the parents know their children drink, only 19 per cent of the students answered that their parents approve. It can also be assumed that the majority of those parents who do not know their children drink would not approve of their drinking.

Kind and source of alcoholic beverages

13. What do you usually drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Beer	225	58	83	45	308	54
Wine	24	6	17	10	41	7
Whiskey	99	26	55	30	154	27
Other	39	10	28	15	67	12

Discussion

The first drink and what students "usually" drink are closely related in this study with beer ranking first in both cases. Although 14 per cent of the students said their first drink was wine, only 7 per cent said they "usually" drank it. More of the girls (45 per cent) said they usually drink distilled beverages than the boys (36 per cent). It is postulated that the cultural behavior in Utah makes it less likely and possibly more difficult for girls to obtain beer than boys. It is also probable that they drink these beverages in the company of boys who are more interested in the stronger spirits on these occasions.

14. Where do you get alcoholic beverages which you drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Parents and/or relatives	39	12	43	25	82	16
Legitimate merchant or bootlegger	77	23	21	12	98	19
Friends	218	65	110	63	328	65

Discussion

The usual source of the alcoholic beverages is friends (65 per cent). An average of 19 per cent of the boys and girls said they obtain it from a legitimate merchant or bootlegger (likely a legitimate merchant as evidenced by answers to other questions), and 16 per cent from parents or other relative. More of the girls who reported that they drank said their alcoholic beverages came from parents and other relatives (possibly even brothers).

Alcoholic beverages in the home and parent drinking

15. Are alcoholic beverages kept in your home?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	114	27	128	27	272	27
No	349	67	331	71	680	69
No reply	30	6	10	2	60	4

Discussion

Only 27 per cent of the students reported that alcoholic beverages are kept in their homes. Since 55 per cent of the students reported they don't drink and there is a relationship between parents and children drinking, this figure is not surprising. Add to this the fact that some parents drink, but do not keep alcoholic beverages in the home even though they are probably in the minority.

16. Are alcoholic beverages customarily served as part of your meals at home?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	13	2	9	2	22	2
No	523	97	464	96	987	97
No reply	1	1	11	2	12	1

Discussion

Only 22 students (2 per cent) said that alcoholic beverages were served as a part of their meals at home. The answers to questions 15 and 16 would be expected in Utah perhaps more than in other states because most of the citizens are members of the Church of Jesus Christ of Latter-day Saints (Mormon Church). Some rural communities are as high as 95 per cent Mormon and Salt Lake City, the lowest area, is over 50 per cent. The Salt Lake City and Granite school districts would not allow this questionnaire to be given in their schools which makes the data even more biased.

17. Does either of your parents drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Mother drinks . . .						
Not at all	362	70	349	74	711	72
Occasionally	75	15	42	9	117	12
Frequently	76	15	76	16	152	15
Heavily	0	0	3	1	3	1
Father drinks . . .						
Not at all	277	52	283	60	560	56
Occasionally	177	22	77	16	194	19
Frequently	125	24	104	22	229	23
Heavily	9	2	8	2	17	2

Discussion

The students indicated that 72 per cent of the mothers and 56 per cent of the fathers did not drink. Twelve per cent of the mothers and 19 per cent of the fathers were said to drink occasionally; with 15 per cent of the mothers and 23 per cent of the fathers were listed as drinking frequently. Relatively few, three mothers and 17 fathers, were reported to drink heavily. The most significant figures seem to be the 152 mothers and 229 fathers that drink frequently, although this is not a large percentage. It is unfortunate that frequently is not defined better, but some limits are placed with "occasionally" and "heavily" on either side. One can only speculate as to the meaning given by the students.

Place of drinking

18. Where do you usually drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
At home	48	13	41	21	89	16
Friend's home	74	20	59	30	133	24
Beer parlor or tavern	28	8	7	4	35	6
Car	177	49	66	36	243	43
Other	38	10	22	11	60	11

Discussion

The most frequent drinking place for the students who said they drink was the car (43 per cent), followed by friend's home (24 per cent), and own home (16 per cent). This seems to indicate that some students used their homes as places where small groups could drink together, while some who did not drink at their own home did do so at their friends' homes; otherwise the two percentages should have been more nearly equal. It is interesting to note that a bigger percentage of boys (49 per cent) than girls (36 per cent) said they drink in cars, while more girls reported drinking at home (girls, 30 per cent; boys 13 per cent) and in a friend's home (girls, 30 per cent; boys, 20 per cent). The significance is that most of the drinking apparently required someone driving someplace. Drinking combined with driving usually leads to problems for someone, oftentimes involving the innocent who have not been drinking.

19. Do you have a car available for your personal use? If so, is it . . . ?

	Boys	Per cent	Girls	Per cent	Total	Per cent
No	76	14	107	21	183	17
Yes						
Your own	217	39	51	10	268	25
Family car	244	43	330	65	574	53
Other	14	3	22	4	36	4
No answer	1	1	0	0	1	1

Discussion

Seventy-eight per cent of the students have their own car (25 per cent), or the family car (53 per cent) available for their use. Add to this the fact that most drinking takes place in the car and one can only conclude that the situation could lead to some difficulties.

Social effects of drinking

20. Do your close friends drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Not at all	155	29	306	62	461	45
Occasionally	263	48	138	28	401	39
Frequently	97	18	43	9	140	13
Heavily	26	5	3	1	29	3

Discussion

On an earlier question, students were asked how frequently they drink and 55 per cent said they did not drink. Probably most of those who do not drink have close friends who do not drink. However, some individuals who do not drink are likely to have close friends experimenting with drinking since the high school years are largely the beginning ages, particularly for girls. These assumptions are somewhat confirmed by the 45 per cent of the students who indicated their close friends did not drink, and by the 62 per cent of girls as compared to the 29 per cent of boys who said their close friends did not drink. One of the interesting items is the 97 boys and 43 girls who have close friends who drink frequently. This is approximately the number indicating they drink three times a month or more, and they likely drink together. The probability is good that abstainers have close friends who abstain and frequent drinkers have close friends that drink frequently.

21. Do you sometimes drink before going to a party?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	158	29	50	11	208	20
No	161	29	91	19	252	25
I don't drink	230	42	336	70	566	55

Discussion

Twenty per cent of all the respondents (29 per cent boys and 11 per cent girls) said they sometimes drink before going to a party. This means that some who said they drink occasionally do not do so before going to parties. The 55 per cent who said here that they don't drink agrees with the answer on question eight which asked how frequently students drark.

22. Has drinking ever caused you to lose close friends or damaged friendships?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	51	10	28	6	79	8
No	462	87	415	90	877	88
No answer	17	3	18	4	35	4

Discussion

Eight per cent or 79 students indicated loss of close friends or damaged friendships as a result of drinking. The boys (10 per cent) outnumber the girls (6 per cent), but this is expected because the boys drink more and heavier than the girls.

Even though eight per cent of the students is not much, 79 students (51 boys and 28 girls) apparently lost some degree of control and affected their friends adversely. This is certainly a first indication of problems, the extent of which cannot be fully assessed at this time.

23. Has drinking ever caused you to miss appointments or lose a job?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	27	5	8	2	35	4
No	482	92	426	93	908	92
No answer	16	3	23	5	39	4

Discussion

This is another indication that drinking among Utah high school students does not appear to be heavy or tend to interfere with the ability to get along. Only four per cent said "yes" to the question. It is likely that the 27 boys and eight girls who indicated that drinking did cause them to miss appointments or lose a job, actually missed appointments.

Illegal attempts to purchase alcoholic beverages

24. Have you ever tried to purchase alcoholic beverages in a tavern?

	Boys	Girls	Total
Yes	149	37	186
No	371	417	788
If you have, were you refused?			
Yes	75	4	51
No	100	33	133
Was your age questioned?			
Yes	75	9	84
No	68	28	96

25. Have you ever tried to purchase alcoholic beverages in a retail store?

	Boys	Girls	Total
Yes	116	22	138
No	399	431	830
If you have, were you refused?			
Yes	41	5	46
No	75	17	92
Was your age questioned?			
Yes	60	8	68
No	53	14	67

Combined attempts to purchase alcoholic beverages in taverns and retail stores.

Have you ever tried to purchase alcoholic beverages in a tavern or a retail store?

	Boys	Girls	Total
Yes	265	59	324
No	770	848	1618
If you have, were you refused?			
Yes	88	9	97
No	175	50	225
Was your age questioned			
Yes	135	17	152
No	121	42	163

Discussion

Of the students who admitted trying to purchase alcoholic beverages in a tavern, 133 were successful in completing the transaction. Ages were requested in 84 cases and unquestioned in 96 cases Some falsifying of ages seems to be evidenced by the lack of agreement with the successful and unsuccessful purchases.

Of the 138 students who tried to purchase alcoholic beverages in a retail store (state controlled liquor store), 92 were successful. Ages were requested in 46 cases and unquestioned in 67 cases. A bigger percentage of boys were refused and questioned than girls.

When the data are combined into attempts to purchase alcoholic beverages in taverns and retail stores it shows that 225 of 324 students were successful. Ages were requested 152 times and unquestioned in 163 cases. Of the 59 girls who tried to purchase the alcoholic beverages, only nine were refused and ages were questioned only 17 times. Of the 265 boys who attempted to purchase alcoholic beverages, 88 were refused (175 successful) and ages were questioned 135 tines (121 unquestioned). Some of the students attempting to purchase the beverages in retail stores and taverns were probably the same people, and each of these individuals might have made many attempts in both taverns and retail stores. This "repeat" factor could raise the total attempts into fairly large figures. Further, it is not likely that a student would make only one attempt to purchase alcoholic beverages illegally, especially if he were successful All of the successful purchases of alcoholic beverages were illegal since the legal age is 21 and seniors in high school are seldom over eighteen. Ages were not even questioned in the majority of cases. Another point worthy of consideration is that if there were this number of successful illegal purchases of alcoholic beverages in taverns and liquor stores, it is assumed that there are as many or more (most likely more) illegal purchases of beer in grocery stores and other common places of distribution such as supermarkets and drug stores. The taverns and retail stores are ordinarily policed better than the above mentioned outlets for beer.

Part of a personal letter from a former student is quoted to illustrate the point. "Maybe a litter more personal testimony would be of use to you. It seems that the small town, local stores are the ones where minors usually can purchase their beer. When my cousins and I were sent after "suds" for our folks, there were never any questions asked. Even when the boys got to 16, 17, and through that age when they wanted six-pacs all to themselves, they still asked for "suds for the folks." It was never denied them. Then, too, out here--the local country, or crossroads store (whatever this size of store is called) will always sell beer to the little Indian children. The owners are careful not to give it to the whites, though. Odd in a way, isn't it? Yet, you can probably see why. The Indians up to the ages of about 11 or 12 can buy beer--then, when they are about high-school age, a few questions are asked, but not a lot. They usually walk out with their beer. Cigarettes can be purchased as easily." This person had grown up in a small Utah community and is presently teaching in another section of the state. Other testimonies, obviously anonymous, tell the same story. If we have laws, they should be enforced, and if the laws are not good, they should be modified or eliminated.

Student opinions about drinking

26. Some common opinions about drinking are listed. Do you agree or disagree with each statement?

"People don't need it for good relations."

	Boys	Per cent	Girls	Per cent	Total	Per cent
Agree	481	88	468	93	949	91
Disagree	31	6	15	3	46	5
Don't know	32	6	11	2	43	4

Discussion

Ninety-one per cent agree, but more girls (95 per cent) agree than do boys (88 per cent). Many students experiment with drinking, but it does not appear to occupy an important place in their lives.

"Drinkers are silly and embarrassing."

	Boys	Per cent	Girls	Per cent	Total	Per cent
Agree	285	53	327	67	612	60
Disagree	174	32	94	19	268	26
Don't know	77	15	68	14	145	14

Discussion

The fact that 40 per cent did not agree or said they didn't know also lends support that drinking is not heavy. Most high school students are likely able to control themselves when drinking. The 60 per cent who agree with the statement probably includes primarily the abstainers who have strong feelings about drinking behavior. This is somewhat confirmed in the 67 per cent of the girls as opposed to the 53 per cent of the boys who agree. More girls abstain than boys.

"Drinking makes parties rough and annoying."

	Boys	Per cent	Girls	Per cent	Total	Per cent
Agree	268	36	327	67	595	49
Disagree	196	27	99	20	294	24
Don't know	270	37	62	13	332	27

Discussion

Again, the girls had stronger feelings about drinking than boys as evidenced by the 67 per cent of girls who agreed that drinking makes parties rough and annoying, whereas only 36 per cent of the boys agreed with the statement. Many of the boys (37 per cent as compared to girls, 13 per cent) were on the fence (don't know"), which also seems to indicate more drinking and less strong feeling on the part of the boys. The total number of students that agreed with the statement is less than would be expected if drinking were heavy.

"Drinking causes arguments and fights."

	Boys	Per cent	Girls	Per cent	Total	Per cent
Agree	370	69	376	77	746	73
Disagree	116	21	60	12	176	17
Don't know	52	10	50	11	102	10

Discussion

Seventy-three per cent of all respondents agreed with the statement, and the girls (71 per cent) were in greater agreement than boys (69 per cent). Three-fourths of the students felt that drinking contributes to aggressiveness in creating arguments and fights.

"Moderate drinking is fun and harmless."

	Boys	Per cent	Girls	Per cent	Total	Per cent
Agree	198	37	115	23	313	30
Disagree	267	51	346	69	613	60
Don't know	63	12	40	8	103	10

Discussion

Only 30 per cent of the total agreed, but 37 per cent of the boys agreed compared to 23 per cent of the girls. Most of the students believed that moderate drinking is not harmless, and this probably reflects the opinions of those who do not drink.

"Drinking makes a party a success."

	Boys	Per cent	Girls	Per cent	Total	Per cent
Agree	74	14	33	7	107	11
Disagree	376	72	421	87	797	79
Don't agree	72	14	30	6	102	10

Discussion

Eleven per cent agreed and the greater percentage of boys (14 per cent) over girls (7 per cent) was in evidence again. Most of the honest and serious students recognized the relative unimportance of drinking in their lives at this time. The 11 per cent who agreed might have personality deficiencies. It would be interesting to follow these people for the next 20 years to see if they have more than their share of problems with alcohol.

"There is nothing wrong with drinking on special occasions."

	Boys	Per cent	Girls	Per cent	Total	Per cent
Agree	272	50	141	31	413	41
Disagree	219	41	276	60	495	50
Don't know	48	9	41	9	89	9

Discussion

Forty-one per cent agreed, and the boys (50 per cent) far outnumbered the girls (31 per cent). Those who drink would be expected to agree and some who do not might be liberal in their view as it pertains to the moderation which "special occasions" implies.

"It is all right to drive and drink."

	Boys	Per cent	Girls	Per cent	Total	Per cent
Agree	20	5	14	3	34	4
Disagree	424	93	469	96	893	95
Don't know	11	2	5	1	16	1

Discussion

Only four per cent (34 students) agreed and they were likely drinkers who had not yet had any difficulty, but they erred in not expanding their judgment beyond themselves. Boys again were more liberal than the girls. It is gratifying to see students' recognition of danger with drinking and driving, but in practice it appears to have little significance. Most of the students who drink, do so in cars and/or their activities involve moving in traffic during the episodes.

27. Do you think it is necessary to drink sometimes to get along socially?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Yes	98	18	27	6	125	12
No	427	80	428	90	855	85
No answer	8	2	20	4	28	3

Discussion

It is interesting to note that 12 per cent (18 per cent of the boys and six per cent of the girls) thought it necessary to drink sometimes to get along socially. This is approximately the same number that think drinking makes a party a success. A few seemed to feel the pressure to conform in a drinking crowd. However, the 85 per cent who said "no" reflected the lack of importance of drinking in their lives. The answers reflected the thinking of the great percentage who don't drink or drink very little

28. Do you think drinking affects popularity?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Favorably	103	22	71	16	174	20
Unfavorably	324	71	327	76	615	73
No answer	33	7	33	8	66	7

Discussion

Only 20 per cent of the students answered that drinking affects popularity favorably. There appears to be some social circles where it is popular to drink. In order to be "one of the gang" one is expected to drink in these groups.

It is gratifying to see that 73 per cent said unfavorable because this is a larger percentage than the 55 per cent who report they don't drink.

29. If you know any young people who drink, why do you think they do so?

	Boys	Per cent	Girls	Per cent	Total	Per cent
To feel grown up	191	13	221	15	412	14
Just for "kicks"	275	18	225	18	530	18
It's fun to get high	166	11	117	8	283	10
To "show off"	203	13	211	14	414	14
Special occasions	102	7	107	7	209	7
For courage	58	4	55	4	113	4
Because friends do	251	17	238	16	489	16
Other kids expect you to	77	5	83	6	160	5
Like the taste	91	6	64	4	155	5
Family custom	16	1	26	2	42	1
Get up nerve	56	4	64	4	120	4
Other	23	1	23	2	46	2

Discussion

It will be seen that more than one reason was checked by any given student. It is obvious that students attempt to imitate adults and get some attention. For the most part, the respondents did not have established drinking patterns and drinking was not an important part of their lives. Eight per cent of the young people apparently drank because they were insecure and needed "courage" or to "get up nerve."

30. Do you consider drinking alcoholic beverages:

	Boys	Per cent	Girls	Per cent	Total	Per cent
Nothing wrong with it	58	8	21	3	79	6
All right if not done in excess	204	30	118	19	322	24
A harmful practice	201	29	255	41	456	35
Morally wrong	94	13	94	15	188	14
A sin	87	12	78	13	165	12
A shameful practice	58	8	58	9	116	9

Discussion

Thirty per cent of the students said there is nothing wrong with drinking or it is "all right" if not done in excess. Boys, again were much more liberal in their views than girls. The 35 per cent who said "a harmful practice" and the additional 35 per cent who said "morally wrong, a sin, or a shameful practice," seem to reflect the influence of some religious teaching. This source of information for students was second to health classes and they indicated that they had great faith in the reliability of their sources of information about alcohol and alcoholism.

Interrelationship of student drinking, religion, and parents' drinking

The following questions have some interrelationships:
1. Student drinking frequency.
2. How important is religion in your life?
3. How many church services do you attend each month?
4. Parents' drinking frequency.

Questionnaires were grouped according to the student drinking frequency: (a) never or once or twice a year, (b) once every 2, 3, 4, or 5 months, (c) once, twice, or three times a month, and (d) once or several times a week. Question 2, 3, and 4 above, were all tabulated in each student drinking frequency group to show the relationship of the frequency of student drinking to the importance of religion in their lives, attendance at church and frequency of parents' drinking.

A. Students' drinking frequency -- "Never or once or twice a year."

Boys	Girls	Total
308	395	703

The 703 students who replied that they "Never drink or drink only once or twice a year" responded to the next three questions as follows:

1. How important is religion in your life?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Very important	194	63	324	85	518	74
Fairly important	87	28	60	15	147	21
Not at all	2	1	3	1	5	1
Don't know	23	8	5	1	28	4

2. How many church services do you attend each month?

	Boys	Per cent	Girls	Per cent	Total	Per cent
None	27	9	23	6	50	7
One-five	98	33	95	24	193	28
Six-ten	64	21	107	27	171	25
Eleven-fifteen	61	20	104	26	165	24
Sixteen-twenty	23	8	15	4	38	5
All	28	9	51	13	79	11

3. Does either of your parents drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Father						
Not at all	203	65	250	64	453	65
Frequently	8	3	30	7	38	5
Occasionally	88	28	94	24	182	26
Heavily	3	1	3	1	6	1
No answer	9	3	15	4	24	3
Mother						
Not at all	236	78	306	79	542	78
Frequently	4	1	12	3	16	2
Occasionally	55	18	57	14	112	16
Heavily			1	1	1	1
No answer	9	3	13	3	22	3

Discussion

Of the 703 students who said they "never drink or drink only once or twice a year," 74 per cent considered religion "very importnat" and 21 per cent considered it "fairly important" in their lives. They said they attended church regularly for the most part. Sixty-five per cent of the fathers and 78 per cent of the mothers were listed as not drinking at all. Another 26 per cent of the fathers and 16 per cent of the mothers were said to drink "occasionally." Only six per cent of the fathers and three per cent of the mothers were reported to drink frequently or heavily. A high relationship is evident here between not drinking and the importance of religion, attendance at church, and parents' abstinence.

B. Student drinking frequency - "Once every 2, 3, 4, or 5 months."

Boys	Girls	Total
60	36	96

The 96 students who replied that they drink "once every 2, 3, 4, or 5 months" responded to the next three questions as follows:

1. How important is religion in your life?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Very important	20	33	12	36	32	34
Fairly important	21	34	17	52	38	41
Not at all	4	7	1	3	5	5
Don't know	16	26	3	9	19	20

2. How many church services do you attend each month?

	Boys	Per cent	Girls	Per cent	Total	Per cent
None	14	23	4	12	18	19
One-five	30	49	18	55	48	51
Six-ten	12	20	6	18	18	19
Eleven-fifteen	2	3	1	3	3	3
Sixteen-twenty	2	3	1	3	3	3
All	1	2	3	9	4	5

3. Does either of your parents drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Father						
Not at all	20	32	10	29	30	32
Frequently	11	18	5	14	16	17
Occasionally	26	44	17	49	43	46
Heavily	1	2	3	8	4	4
No answer	1	2			1	1
Mother						
Not at all	33	55	15	46	48	51
Frequently	6	10	2	6	8	8
Occasionally	18	30	17	48	35	37
Heavily						
No answer	3	5	1	1	4	4

Discussion

Of the 96 students who reported drinking "once every 2, 3, 4 or 5 month" 34 per cent considered religion "very important" and 41 per cent "fairly important" in their lives. Their attendance at church was not as regular as the relative abstainers. Thirty-two per cent of the fathers and 51 per cent of the mothers were said not to drink. Another 46 per cent of the fathers and eight per cent of the mothers were cited as drinking frequently or heavily.

C. Student drinking frequency -- "Once, twice, or three times a month."

Boys	Girls	Total
76	42	118

The 118 students who replied that they drink "once, twice, or three times a month" responded to the next three questions as follows:

1. How important is religion in your life?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Very important	25	29	15	37	40	32
Fairly important	42	50	19	46	61	48
Not at all	7	8	2	5	9	7
Don't know	11	13	5	12	16	13

2. How many church services do you attend each month?

	Boys	Per cent	Girls	Per cent	Total	Per cent
None	22	26	6	15	28	22
One-five	40	46	20	50	60	48
Six-ten	10	12	4	10	14	11
Eleven-fifteen	9	10	3	7.5	12	10
Sixteen-twenty	1	1	3	7.5	4	3
All	4	5	4	10	8	6

3. Does either of your parents drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Father						
Not at all	27	31	15	36	42	33
Frequently	11	13	7	17	18	14
Occasionally	47	55	19	45	66	51
Heavily	1	1	1	2	2	2
No answer						
Mother						
Not at all	50	59	19	45	69	54
Frequently	2	2	5	12	7	5
Occasionally	33	39	15	36	48	38
Heavily			1	2	1	1
No answer			2	5	2	2

Discussion

Of the 118 students who said they drank "once, twice, or three times a month" only 32 per cent considered religion "very important" and 48 per cent considered it "fairly important" in their lives. Their attendance at church was less regular than the two previous categories of students. Thirty-three per cent of the fathers and 54 per cent of the mothers were said not to drink. Another 51 per cent of the fathers and 38 per cent of the mothers were reported to drink "occasionally." Sixteen per cent of the fathers and six per cent of the mothers of these students were said to drink frequently or heavily. There was less drinking reported for parents in this group than for the parents of the students who drink "once every 2, 3, 4, or 5 months."

D. Students drinking frequency -- "Once a week or several times a week."

Boys	Girls	Total
83	18	101

The 101 students who replied that they drink "once every week or several times a week" responded to he next three questions as follows:

1. How important is religion in your life?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Very important	19	22	3	17	22	21
Fairly important	34	40	11	61	45	44
Not at all	10	12			10	10
Don't know	22	26	4	22	26	25

2.. How many church services do you attend each month?

	Boys	Per cent	Girls	Per cent	Total	Per cent
None	28	35	5	27	33	33
One-five	40	49	9	50	49	50
Six-ten	11	14	1	6	12	12
Eleven-fifteen	1	1			1	1
Sixteen-twenty						
All	1	3	3	17	4	4

3. Does either of your parents drink?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Father						
Not at all	28	34	5	28	33	33
Frequently	13	16	6	34	19	19
Occasionally	37	44	5	28	42	41
Heavily	4	5	1	5	5	5
No answer	1	1	1	5	2	2
Mother						
Not at all	46	55	6	34	52	51
Frequently	7	9	3	17	10	10
Occasionally	28	34	7	39	35	35
Heavily			1	5	1	1
No answer	2	2	1	5	3	3

Discussion

Of the 101 students who said they drank "once a week or several times a week" only 21 per cent considered religion "very important" and 45 per cent considered it "fairly important" in their lives. A larger percentage indicated "not at all" or "don't know" than in the previous groups. Their attendance at church was reported to be irregular and 33 per cent of them did not attend at all. Thirty-three per cent of the fathers and 51 per cent of the mothers were said not to drink at all. Another 41 per cent of the fathers and 35 per cent of the mothers reportedly drink occasionally. Twenty-four per cent of the fathers and 11 per cent of the mothers were judged to drink frequently or heavily.

Summary of the interrelated questions

In this group of students:

a. As the frequency of drinking increases, there was an increased ratio of boys to girls.

b. Girl abstainers numbered more than boy abstainers.

c. The girls considered religion more important in their lives and attended church more regularly than the boys.

d. As the frequency of drinking increased, religion became less important and church attendance less regular.

e. The frequency of parents' drinking did not increase with the frequency of their children drinking, although there was a little more "frequent" or "heavier" drinking reported among parents of the more frequently drinking students.

f. In the relatively abstaining group of students, a high relationship existed between their abstinence and importance of religion, attendance at church, and parents' relative abstinence.

Drinking, social relationships, and grades

Eighty-six students (67 boys and 19 girls) who indicated they drank several times a week or once a week were compared with an equal number of non-drinking boys and girls selected at random on the following questions:

1. How well do you get along at home?

2. Do you consider yourself to be accepted by others?

3. Do you make friends easily?

4. Would you say you are the type of person who likes to do what everyone else does or would you rather do things alone?

5. How do you rate your school compared to other schools in this area?

6. What is your average school grade?

1. How well do you get along at home?

	Boys	Percent	Girls	Per cent	Total	Per cent
Drinkers						
Average	40	60	12	63	52	60
Fair	21	31	4	21	25	29
Poor	6	9	3	16	9	11
Non-drinkers						
Average	59	88	15	78	74	86
Fair	8	12	4	22	12	14
Poor	0	0	0	0	0	0

Discussion

The assumption that non-drinkers as a group get along better at home was confirmed. None of the non-drinkers indicated they got along poorly at home, whereas 11 per cent (6 boys and 3 girls) of the drinkers did. A large majority of the non-drinkers (86 per cent) checked the highest category of "getting along" compared to 60 per cent of the drinkers. It would be interesting to know if the drinkers don't get along too well at home because of their drinking, or if they drink because of some family related problems.

2. Do you consider yourself to be accepted by others?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Drinkers						
By everyone	8	12	4	21	12	14
Almost everyone	47	70	13	68	60	70
By some people	12	18	2	11	14	16
Hardly anyone	0	0	0	0	0	0
Non-drinkers						
By everyone	11	17	8	42	19	22
Almost everyone	41	61	7	37	48	56
By some people	13	19	4	21	17	20
Hardly anyone	2	3	0	0	2	2

Discussion

It is apparent that non-drinkers also have serious problems as evidenced by more non-drinkers checking the lower two categories of acceptance by others. However, a larger percentage of non-drinkers considered themselves accepted by everyone. There is some indication that drinkers are generally more friendly, since more drinkers are accepted by "almost everyone" than non-drinkers. This may be related to the following question (see discussion).

3. Do you make friends easily?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Drinkers						
Quite easily	51	77	15	79	66	77
Sort of easy	12	18	4	21	16	19
Not easy at all	3	5	0	0	3	4
Non-drinkers						
Quite easily	41	61	13	68	54	63
Sort of easy	20	30	5	26	25	29
Not easy at all	6	9	1	6	7	8

Discussion

According to the respondents the drinkers make friends easier than the non-drinkers. The reason is not known and one can only guess, but it is postulated that the drinkers are less well adjusted and have a greater need for feeling accepted by others. Consequently, they develop patterns of behavior more conducive to being liked and making friends.

Most alcoholics are friendly, congenial people when they are sober. Their most destructive behavior by far, occurs under the influence of alcohol. This could be an indication that the drinking students have more problems because their difficulties at home likely arise from the drinking situation as well as their less well adjusted personalities since the drinking is often a symptom of underlying personality problems. The greater need for having and making friends may be a symptom of some instability which eventually could lead to one's downfall when too much alcohol or too many attempts to escape reality are interwoven into one's pattern of living. This reasoning, even though untested is at least worthy of some consideration.

4. Would you say you are the type of person who likes to do what everyone else does or would you rather do things alone?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Drinkers						
Do what everyone else does	36	54	9	48	45	52
Don't know	23	34	5	26	28	33
Do things alone	8	12	5	26	13	15
Non-drinkers						
Do what everyone else does	29	43	14	74	43	50
Don't know	25	38	5	26	30	35
Do things alone	13	19	0	0	13	15

Discussion

Differences between drinkers and non-drinkers are not manifest on answers to this question. The most important point seems to be the greater non-conformity of the non-drinking boys and the drinking girls.

5. How do you rate your school compred to other schools in this area?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Drinkers						
Superior	38	57	10	52	48	56
About the same	24	36	8	42	32	37
Inferior	5	7	1	6	6	7
Non-drinkers						
Superior	38	57	11	58	49	57
About the same	29	43	8	42	37	43
Inferior	0	0	0	0	0	0

Discussion

Six drinkers rated their school inferior. No non-drinkers thought their school was below average. The other two categories were approximately even. Rating a school inferior is a symptom of dissatisfaction and indicative of problems with these people. It seems to be associated with their drinking, and it would be interesting to follow these students through the next 15 years.

6. What is your average school grade?

	Boys	Per cent	Girls	Per cent	Total	Per cent
Drinkers						
A	2	3	1	6	3	4
B	16	24	11	57	27	32
C	45	67	5	26	50	58
D	3	5	1	6	4	4
F	0	0	1	6	1	1
No answer	1	1	0	0	1	1
Non-drinkers						
A	6	9	5	26	11	13
B	33	49	9	48	42	49
C	28	42	5	26	33	38
D	0	0	0	0	0	0
F	0	0	0	0	0	0
No answer	0	0	0	0	0	0

Discussion

The non-drinkers have much better grades than the drinkers. Only three drinkers recorded an average grade of A, whereas 11 non-drinkers reported the highest grade. None of the non-drinkers were below the C grade, whereas six drinkers, the same number that rated their school inferior, were doing poorly with their grades.

Summary-drinking, social relationships, and grades

a. The non-drinkers get along better at home than the drinkers.

b. More non-drinkers were accepted by "everyone" and more were also less accepted as evidenced by a bigger percentage of answers in the accepted "by some people" and "hardly anyone" categories. Non-drinkers also have problems.

c. The drinkers seem to make friends easier than the non-drinkers. This may be an indication of a greater need for the support of others and reflect some personality instability.

d. More drinkers rated their school inferior to other schools in the area.

e. Non-drinkers have the best grades in school.

TEACHER AND STUDENT UNDERSTANDING OF ALCOHOL AND ALCOHOLISM IN SELECTED HIGH SCHOOLS OF UTAH

Introduction

The great majority of U. S. citizens over 15 years of age drink alcoholic beverages to some extent. For most individuals, this learned social activity creates only minor problems. Some, however, have alcohol-associated problems of such a magnitude that numerous other people are affected either directly or indirectly. Carefully designed programs of education aimed at the adolescent public school population can help prevent alcohol and drinking problems in adults.

Alcohol education programs generally have been non-existant or poorly organized in the nation's schools. In the past decade, however, many states have demonstrated concern about this relative complacency. Kerr (4) completed an extensive study of alcohol education in the most heavily populated sections of Utah in 1957, and some of his findings seem appropriate for review here because they relate to the preparation of teachers and the students' understanding of alcohol and alcoholism.

He found that the amount of time devoted to instruction about alcohol varied from the equivalent of about two one-hour periods in drive education to an average of twelve or thirteen class periods in seventh and eighth grades, and in the high school areas of health and social studies. An average of about 19 class periods was spent in the ninth grade. Most teachers believed that they needed more time. In addition, all but three of the teachers believed that special training was desirable and perhaps necessary, if an effective job were to be done in this area of instruction.

Teachers who presented the facts about alcohol without taking a stand for or against drinking obtained a more enthusiastic response on the part of students generally than did those who took such a stand.

A tabulation of incorrect answers to certain statements on pre- and post- instructional test indicated that some facts about alcohol apparently were slow to be accepted by many of the students. Nevertheless, over 90 per cent of the junior high school students indicated that they had gained a better understanding about the use of alcohol as a result of the instruction. In senior high school driver training and social studies classes close to 90 per cent reported a better understanding, while in health classes the percentages varied from 64 per cent to 92 per cent.

Objectives of the Study

The objectives of the complete study reported here were to:

1. Assess the extent of drinking among representative high school students in Utah and their sources of alcohol.

2. Determine what information high school students in general have about alcohol and alcoholism, where this was obtained, and the creditability of the information.

3. Survey the relevant knowledge and backgrounds of health teachers and others who teach about alcohol in their classes.

Note: This part of the report is concerned with the second and third objectives.

Analysis of Data

The answers to the questions on the knowledge questionnaire were reviewed according to the relatedness of certain questions rather than their order of appearance on the questionnaire. Many questions were grouped together because they came from the same source. Others were grouped because they were similar in kind, and the rest were arbitrarily placed because they had no particular relationship to other questions.

Questions from senior high school health guide

The following knowledge questions were selected from the Alcohol Education Quiz in the Senior High School Health Guide, Unit II, Alcohol and Health, Utah State Department of Public Instruction. This book is widely used in Utah, and most students in the state who have taken a health course can be expected to have covered such material. Answers are tabulated in terms of total number and percentages of teachers and students answering TRUE, FALSE, or UNDECIDED. A percentage breakdown of boys' and girls' answers s also given. Correct answers are underlined, and a discussion is presented for each question.

1. Wine contains 2-6 per cent alcohol.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	7	17.6	544	29	30	28
False	25	62.5	613	32	44	20
Undecided	8	20	744	39	26	52

Discussion

Thirty-two per cent of the students and 63 per cent of the teachers answered this correctly. The students appear to be poorly informed as to the alcohol content of wines and distilled spirits, as evidenced by questions one and two. The boys were better informed than the girls. Forty-four per cent of the boys answered the question correctly, whereas only 20 per cent of the girls had it right. Fifty-two per cent of the girls were undecided, and 28 per cent missed it, which means that 80 per cent did not know the answer. Many teachers apparently need more information as well, since 38 per cent were incorrect in their answers.

True or natural wine contains 12-14 per cent alcohol because fermentation stops at this concentration. This amount of alcohol kills the yeast which is necessary to produce alcohol in the fermentation process. Many wines are fortified with distilled spirits, which makes the alcohol content even higher.

2. Distilled liquors contain 45-50 per cent alcohol.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	33	82.5	926	49	60	37
False	2	5	341	18	21	15
Undecided	5	12.5	636	33	19	48

Discussion

Over one-half of the students (51 per cent) apparently do not know the alcoholic content of distilled beverages. As in the first question, the girls are less well informed than the boys. The teachers did better on this topic with 83 per cent answering correctly.

Most distilled beverages are between 80 and 100 proof, and the per cent alcohol is equal to one-half the proof rating.

3. Drinking alcoholic beverages increases body temperature.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	16	40	1132	60	52	66
False	21	52.5	561	29	39	20
Undecided	3	7.5	210	11	9	14

Discussion

Only 29 per cent of the students and 53 per cent of the teachers answered this correctly. Again, the boys seem to be better informed than the girls.

The sense of warmth created by drinking alcoholic beverages is a misconception. In reality, alcohol dilates the superficial blood vessels of the skin and actually allows more heat to escape. Thus, body temperature is lowered rather than raised. It is comparable to turning the thermostat up and opening all of the windows in the house.

4. Utah laws permit the use of alcohol by all persons choosing to do so after attaining the age of eighteen.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	4	10	220	12	9	15
False	35	90	1602	84	88	79
Undecided			86	4	3	6

Discussion

The age limit in Utah is 21, and 90 per cent of the teachers and 84 per cent of the students were aware of the correct answer. Again, more boys were correct than the girls (88 and 79 per cent, respectively).

5. It is unlawful to have in an automobile in Utah a bottle of distilled liquor which has had the seal broken.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	29	72.5	1345	70	71	69
False	7	17.5	292	16	18	13
Undecided	4	10	271	14	11	18

Discussion

This is what the law says, and most teachers and students knew it, as evidenced by the 71 per cent of students and 73 per cent of the teachers who answered correctly. However, the numbers of individuals in the sample who were aware of the law on this point indicated that it should be taught more effectively.

6. A person becomes an alcoholic when he or she develops an emotional and physical dependence on alcohol.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	37	92.5	1762	92	92	94
False	3	7.5	94	5	5	3
Undecided			51	3	3	3

Discussion

Both teachers (93 per cent) and students (92 per cent) seem to recog-ize the broad general description of an alcoholic.

Since most alcoholics differ, the disease is difficult to describe and efine. There are about as many different kinds of alcoholism as there are lcoholics. However, all alcoholics are characterized by overindulgence in nd a dependence on alcohol.

7. One out of thirteen users of alcohol becomes an alcoholic.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	23	59	883	46	50	44
False	6	15	359	19	20	17
Undecided	10	26	660	35	30	39

Discussion

Less than one-half of the students (46 per cent) and only 59 per cent of the teachers knew the correct answer. The fact that respondents answer in the undecided column also indicates that they do not know the answer.

Approximately six per cent of the drinking population between the ages of 15 and 65 will become alcoholic, which means that about one in thirteen drinkers will become alcoholics.

8. Rehabilitation and recovery of the alcoholic demands total abstinence from alcoholic beverages.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	38	98	1598	84	83	85
False	1	2	144	8	8	7
Undecided			164	8	9	8

Discussion

Teachers and most students were well informed which probably means that the point is heavily emphasized in the schools.

There are a few well-documented cases of alcoholics becoming social drinkers again, which indicates that it is not irreversible in every alcoholic. However, there is very little hope for most alcoholics ever having anything but trouble with alcohol; so the philosophy, of necessity, must be that the alcoholic understand that recovery demands total abstinence. The risks are too great to attempt to regain a social drinking life.

9. A respectable family background, good education, and success in business will keep a drinker from becoming an alcoholic.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	1	2.5	151	8	8	8
False	39	97.5	1689	89	88	89
Undecided			63	3	4	3

Discussion

All but one teacher and most students (89 per cent) were well informed. Alcoholism is no respector of status.

10. For young people the most immediate danger in drinking is intoxication and its subsequent dangers.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	31	77.5	1488	78	77	79
False	8	20	276	15	16	13
Undecided	1	2.5	142	7	7	8

Discussion

Approximately 22 per cent of the teachers and students did not agree with this true statement.

The key in the question is the use of the word "immediate." Other dangers associated with the use of alcohol take a long time to develop, e.g., cirrhosis of the liver, alcoholism, and other physical disorders. The most immediate dangers to young (and old) are found in the situations that confront drinking drivers and in much of the immorality that seems to be associated with the use of alcohol.

11. Alcoholism is classed as a disease by the American Medical Association.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	40	100	1706	89	89	91
False			76	4	4	3
Undecided			124	7	7	6

Discussion

Eleven per cent of the students did not know that alcoholism was officially classified as a disease by the American Medical Association in 1952. It was accepted by the World Health Organization in 1953. It is also of interest to note that in this case, girls were better informed than boys.

12. Two bottles of beer on an empty stomach affect most people's ability to drive a car. (modified from original study guide question)

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	38	95	1489	78	80	77
False	1	2.5	167	9	12	7
Undecided	1	2.5	242	13	8	16

Discussion

Apparently 22 per cent of the students did not know that beer can make a person drunk. Many students were also unaware of the amount of alcohol in beer, and that the effect of alcohol in any form is intensified in an empty stomach.

Intoxication begins with the first drop of alcohol entering the blood stream, and the effect on one's behavior also begins here. The driving ability of practically everyone will be significantly affected by the amount of alcohol contained in two bottles of beer and more so if the alcohol enters the blood very quickly from an empty stomach. All people can cope with alcohol much better when they have food in their stomachs, even though the blood alcohol concentration may be the same as if the alcohol were taken on an empty stomach.

Questions from Kerr's (4) study

Kerr's tabulation of incorrect answers to certain statements on pre- and post-instructional tests indicated that some facts about alcohol apparently are slow to be accepted by many of the students. Five questions were included in the present study because of this part of his 1957 study which was completed in the most heavily populated sections of Utah. Kerr's findings are summarized for comparison.

13. The alcohol in alcoholic beverages destroys cells and tissues in the body

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	18	44	1148	60	59	61
False	21	51	605	32	35	29
Undecided	2	5	153	8	6	10

Discussion

Kerr found that 76 per cent in the seventh and eighth grades failed to give the correct answers of false on the pre-test and 68 per cent failed on the post-test. In the ninth and tenth grades, 87 per cent failed to answer the pre-test correctly, while 65 per cent failed on the post-test. In the eleventh and twelfth grades, 78 per cent failed the pre-test and 70 per cent failed the post-test after instruction.

The present study found that 68 per cent of the students and 49 per cent of the teachers answered the question incorrectly. The high school seniors were not much better informed than Kerr's junior high school students were in their pre-test.

The answers may be due in part to individual interpretations of the statement, since some evidence indicates deterioration of certain tissues after long periods of heavy drinking (e.g., the liver and brain). However, this could be only indirectly caused by the alcohol because of the interference of bodily functions created by depression of the central nervous system. It is not likely that alcohol directly destroys cells and tissues of the body, because the concentration in the blood after drinking is always less than 0.50 per cent, which is very low; and cellular damage would have to be over a long period of time.

14. Alcohol is a stimulant after it gets into the blood stream.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	3	8	664	35	34	36
False	36	92	1119	59	61	57
Undecided			117	6	5	7

Discussion

Kerr found in the seventh and eighth grades that 48 per cent failed to give the correct answer of false on the pre-test and 48 per cent failed to give the correct answer on the post-test. In the ninth and tenth grades, 69 per cent failed to answer the pre-test correctly and 16 per cent failed on the post-test. In the eleventh and twelfth grades, 69 per cent failed the pre-test and 20 per cent failed the post-test after instruction.

The present study found that 35 per cent of the students still think of alcohol as being a stimulant, and another six per cent did not know. Only eight per cent of the teachers did not know the correct answer. Boys, again, were slightly better informed than the girls. The senior students were better than Kerr's junior high school groups, but apparently this information is difficult for young people to accept.

After alcohol gets in the blood stream, it is a depressant. The misconception is perpetuated because small amounts of alcohol "stimulate" the appetite, also, the releasing of tensions and inhibitions provides a feeling of stimulation but is really evidence of the depressing effect on the brain.

15. A person can safely drive an automobile an hour after drinking a couple of drinks.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	6	15	239	13	16	9
False	30	75	1319	69	68	71
Undecided	4	10	339	18	16	20

Discussion

Kerr found in the seventh and eighth grades that 27 per cent failed to give the correct answer of false on the pre-test and 15 per cent failed to give the correct answer on the post-test. In the ninth and tenth grades, 14 per cent failed to answer the pre-test correctly and 12 per cent again failed on the post-test. In the eleventh and twelfth grades, 23 per cent failed on the pre-test and 10 per cent failed on the post-test after instruction.

The present study found that 75 per cent of the teachers and 69 per cent of the students answered correctly. In this case, the girls (71 per cent) were slightly better informed than the boys (68 per cent). When compared to Kerr's groups, it is evident that the senior students had not accepted this information. They were actually less well informed than the junior high school students.

The maximum effect of alcohol on driving skills and most motor skills occurs approximately one hour after drinking. The initial effects, however, are quite pronounced soon after drinking because the alcohol gets to the brain quickly and only later is it distributed to all parts of the body. This so-called "overshooting" often makes the individual believe that the effects are greatest at first. In reality, however, the maximum effect on the body is noted about 60 minutes after the drinking. Yet many young people (approximately 30 per cent) seem to think they can drive safely one hour after they have a couple of drinks.

16. A physician is able to tell a beginning drinker whether or not he will become an alcoholic.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	3	8	167	9	10	9
False	36	92	1461	77	80	73
Undecided			272	14	10	18

Discussion

Kerr found in the seventh and eighth grades that 36 per cent failed to give the correct answer of false on the pre-test and 24 per cent failed on the post-test. In the ninth and tenth grades, 40 per cent failed to answer the pre-test correctly and 16 per cent failed on the post-test. In the eleventh and twelfth grades, 34 per cent failed the pre-test and 21 per cent failed the post-test.

The present study found 92 per cent of the teachers and 77 per cent of the students answered correctly. The boys (80 per cent correct) were better than the girls (73 per cent correct). This is a little better than Kerr's findings on his pre-test, but not much better than the post-test. Senior high school students should be better informed than junior high school students.

There are many kinds of alcoholics, based on their drinking behavior, but no one as yet can accurately predict who will be an alcoholic. Many people, because of poorly adjusted personalities, are probably poor risks if they drink, but so many factors contribute to alcoholism it is impossible to predict who will develop the disease.

17. A faily large percentage of alcoholics are mentally defective.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	5	12	511	27	28	31
False	33	83	914	48	48	46
Undecided	2	5	470	25	24	23

Discussion

Kerr found in the seventh and eighth grades that 55 per cent failed to give the correct answer of false on both the pre- and post-test. In the ninth and tenth grades, 51 per cent failed to answer the pre-test correctly and 48 per cent failed the post-test. In the eleventh and twelfth grades, 51 per cent failed the pre-test and 39 per cent failed the post-test.

The present study found that 18 per cent of the teachers and 52 per cent of the students answered incorrectly. Boys and girls were almost equal. If Kerr's study is indicative of junior high school students and the seniors in the study are representative of Utah high school students, this kind of information is difficult to accept.

Most alcoholics are average or above average mentally when they are sober. Long periods of heavy drinking may seriously reduce one's ability to utilize his mental faculties and when one is drunk, he or she doesn't always appear as he might under other circumstances.

Additional true-false questions

These questions also relate to information ordinarily taught in Utah schools in courses dealing with alcohol and alcoholism.

18. Beer will not make you drunk.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True			109	6	6	6
False	39	97.5	1635	91	92	90
Undecided	1	2.5	54	3	2	4

Discussion

All but one teacher (98 per cent) and 91 per cent of the students apparently knew that beer will make one drunk.

The key to some of the wrong answers might be in the definition of intoxication or drunkenness. Some students seem to think that being drunk equates with almost passing out, and many do not realize that one bottle of beer contains as much alcohol as a "shot" of whiskey or a small glass of wine.

19. All alcohol taken into the body is oxidized.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	10	26	574	30	30	30
False	27	69	832	44	53	35
Undecided	2	5	498	26	17	35

Discussion

Fifty-six per cent of the students and 31 per cent of the teachers answered incorrectly. The boys (53 per cent correct) were notably better informed than the girls (35 per cent correct).

Approximately five per cent of any alcohol taken into the body is excreted through the lungs and the kidneys. This is the reason blood alcohol can be accurately measured by the analysis of breath and urine.

20. Alcohol is habit forming.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	28	70	1481	78	75	81
False	10	25	289	15	17	13
Undecided	2	5	129	7	8	6

Discussion

Eighty-five per cent of the students and 75 per cent of the teachers gave what is considered to be the wrong answer. Percentage wise, the boys (17 per cent correct) were a little better informed than the girls (13 per cent correct). If the teachers were better informed, the students would be more likely to be better informed.

The definition of habit forming could be the point of confusion. Consequently, this question is not as useful as it should have been. Nevertheless, if alcohol were habit forming in the broad sense, all people who drink would develop the habit. Yet it is habit forming or addictive for some people. At any rate, there appear to be some misconceptions as to its role in determining behavior which is termed as "habit forming."

21. The alcohol in wine is different from that found in beer or whiskey.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	3	7.5	525	28	20	35
False	37	92.5	930	50	65	33
Undecided			399	22	15	32

Discussion

This question and the two following are related. Note the results and comments on each.

Most of the teachers (93 per cent) answered correctly, but only 50 per cent of the students gave the right answer. Boys (65 per cent correct) were much better informed than girls (33 per cent correct).

Ethyl alcohol is the intoxicating substance in all alcoholic beverages used by man in the context of our treatise of alcohol and alcoholism. Obviously, other alcohols may be mistakenly consumed, e.g., methyl alcohol is sometimes found in private stills due to improper distillation, but it is not intended to be there. It can cause blindness and even death. The misconception that one behaves differently when one drinks wine as compared to whiskey is prevalent. So-called "winoes" are believed by many to behave as they do because they drink wine. This is not true. The only intoxicating substance in all of the alcoholic beverages is ethyl alcohol. The only difference is in the amount of ethyl alcohol. The other substances found in the beverages do not cause intoxication or drunkenness, nor do they effect a change in one's behavior.

22. The alcohol used for all beverages is:

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
a. I don't know	10	25	867	45	38	51
b. Methyl	1	3	487	26	28	24
c. Amyl			80	4	5	3
d. Propyl	1	3	54	3	3	2
e. Ethyl	27	69	429	22	26	20

Discussion

Seventy-eight per cent of the students and 31 per cent of the teachers did not know the kind of alcohol in alcoholic beverages. Girls (20 per cent correct) had less knowledge than boys (26 per cent correct), but both groups are in need of more instruction.

Students should be taught that all alcoholic beverages contain the same kind of alcohol (ethyl) and that the behavior patterns of intoxicated people result from differences in personality, physiological makeup, and the level of alcohol, regardless of the kind of beverage consumed. As an example, many people identify certain alcoholics as "winoes," thinking they behave as they do because they drink wine. The consumption of wine by these people is usually an economic necessity. It goes further for less money. Their behavior would be the same regardless of the alcoholic beverage consumed.

23. Is the particular kind of beverage a person drinks a factor in whether or not he or she will become an alcoholic?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
Yes	5	13	555	30	31	26
No	33	85	930	51	45	51
Don't know	1	2	353	19	24	23

Discussion

Again, the kind of beverage has nothing to do with behavior or with whether or not one will become an alcoholic. Yet 13 per cent of the teachers and 30 per cent of the students said it does. An additional 19 per cent of the students did not know; this means that 49 per cent of the students did not know the correct answer. The preceding two questions indicate lack of knowledge on related points, particularly with students. Of the people who answered "yes" to this question, the predominant answer as to the kind of beverages which contribute most, was distilled beverages. They do contain the most alcohol and are consumed more by heavy drinkers, but they do not cause the person to become alcoholic.

24. The rate of entrance of alcohol into the blood stream is affected by food in the stomach.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	36	90	1127	63	66	55
False	3	7.5	255	14	15	21
Undecided	1	2.5	415	23	19	24

Discussion

Ninety per cent of the teachers and 63 per cent of the students answered "true," which is correct. Again, the boys (66 per cent correct) were better informed than the girls (55 per cent correct).

Any kind of food will retard the passage of alcohol through the walls of the stomach and small intestine into the blood stream. Since the alcohol molecule is small (molecular weight of 48, compared to glucose, a simple sugar, with a molecular weight of 180), it passes unchanged into the blood stream. Fatty foods appear to delay absorption more than most foods, although boiled potatoes, because of their porous, liquid state, retain alcohol even longer than fats in the stomach.

25. Alcoholism is inherited.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True			108	5	6	6
False	39	97.5	1659	89	88	87
Undecided	1	2.5	124	6	6	7

Discussion

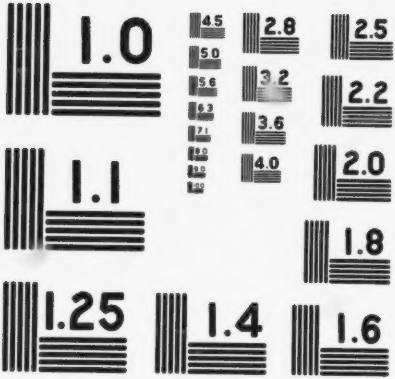
Most of the teachers (all but one) and students (89 per cent) answered correctly. The fact that more alcoholics come from families where a parent(s) are alcoholic is explained best by the poorer environment caused by parents who are alcoholic. Chances of children growing up where there is a need to escape from reality are increased if they are reared in families which do not help supply the ingredients for good adjustment.

26. A person is delinquent if he or she drinks.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	7	17.5	233	12	14	12
False	33	82.5	1646	77	75	77
Undecided			196	11	11	11

Discussion

Eighty-three per cent of the teachers and 77 per cent of the students answered correctly. Boys and girls were approximately equal.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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963

The definition of delinquency might confuse some people, but the commonly accepted meaning should not lead 23 per cent of the students to associate delinquency and drinking. If this were the case, 71 per cent of the population is delinquent for this reason alone. Teachers should be able to help students with this concept.

27. An alcoholic can be helped and is worth helping.

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
True	40	100	1793	95	92	97
False			58	3	4	2
Undecided			46	2	4	1

Discussion

The brotherhood of man is reflected in the 100 per cent of the teachers and 95 per cent of the students answering "true" to this statement. Eight per cent of the boys said they are not worth helping, whereas only three per cent of the girls gave a negative answer. Most respondents seemed to realize that alcoholics are sick people who are worth helping and can be helped, if they want to be.

Multiple choice questions

28. In your opinion, people who have drinking problems come from what walks of life or social groups in the community?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
a. I don't know			80	4	5	3
b. Professional groups mainly	1	2.5	19	1	1	1
c. Labor classes mainly	2	5	21	1	2	1
d. Mostly lower levels of society	1	2.5	140	8	10	4
e. Mostly upper levels of society			76	4	5	3
f. All walks of life and all social groups	36	90	1552	82	77	88

Discussion

Alcoholism is no respector of cultural and economic categories, and most teachers (90 per cent) and students (82 per cent) recognized this fact. It is interesting to note that "Mostly lower levels of society" received eight per cent of the total student vote, with 10 per cent of the boys giving this answer. Eighty-eight per cent of the girls gave the correct answer (f), and only 77 per cent of the boys answered correctly.

29. What per cent of alcoholics are of the skid row type?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
a. I don't know	10	25	926	49	43	54
b. 5	18	45	233	12	15	9
c. 20	9	22.5	359	19	20	17
d. 50	2	5	212	11	9	13
e. 75			141	7	10	5
f. 90	1	2.5	42	2	3	2

Discussion

Only 45 per cent of the teachers and 12 per cent of the students answered this question correctly. The boys (15 per cent) out numbered the girls (9 per cent) in correct answers. The point of concern is that 49 per cent of the students and 25 per cent of the teachers admitted that they did not know.

The best studies indicate that only about 3 per cent of the alcoholics are of the skid row type. Even though most of the students and teachers knew that alcoholics come from all walks of life and all social groups, they apparently thought that they are to be found on skid row, which is far from the truth. Only a small per cent of the total number of alcoholics gravitate to skid row.

30. Most laws say you are drunk when the blood alcohol concentration is above what per cent?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
a. I don't know	6	15	547	29	24	32
b. 0.05	10	25	557	29	30	28
c. 0.10	2	5	173	9	9	9
d. 0.15	21	52.5	494	26	29	24
e. 0.20	1	2.5	80	4	4	4
f. 0.25			67	3	4	3

Discussion

Utah law says 0.15 per cent concentration, although some states have lowered the concentration to 0.10 per cent. Only 26 per cent of the students gave the correct answer. The sexes were fairly equally distributed with the boys (29 per cent) being slightly better than the girls (24 per cent) in answering correctly. The relatively low 53 per cent of the teachers who answered 0.15 partially accounts for the students not knowing what the law says.

31. "100 proof" on a distilled beverage means what per cent is alcohol?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
a. I don't know	5	12.5	423	22	12	33
b. 25			44	2	2	2
c. 50	27	67.5	801	42	62	22
d. 75	3	7.5	108	6	6	6
e. 100	5	12.5	522	28	18	37

Discussion

Sixty-eight per cent of the teachers and 42 per cent of the students answered correctly. Note that only 22 per cent of the girls, as compared to

62 per cent of the boys, were correct. The boys were much better informed than the girls, indicating perhaps that this information was not obtained in a formal class.

"Proof" came from the old gun powder test. For lack of a better test, the beverage was poured on some gun powder and ignited. If it burned, it was 100 per cent "proof" that the liquor was good whiskey or at least 50 per cent alcohol. Consequently, 200 proof is straight grain or 100 per cent alcohol.

32. Alcohol is oxidized at what rate in the average person (150 pounds)?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
a. I don't know	15	37.5	1162	61	51	71
b. 1/3 ounce per hour	10	25	238	12	17	8
c. 3/4 ounce per hour	10	25	121	6	7	6
d. One ounce per hour	4	10	264	14	18	9
e. Two ounces per hour	1	2.5	127	7	7	6

Discussion

Most of the students (61 per cent) and 38 per cent of the teachers admitted they did not know the answer. Only 25 per cent of the teachers and 12 per cent of the students answered correctly. Boys (17 per cent correct) were better informed than girls (8 per cent correct).

People differ to some extent in their oxidation rates, but most differences are due to size. A large person has a large liver, thus, he oxidizes more alcohol than a smaller man. At the oxidation rate of 1/3 fluid ounce of alcohol per hour the concentration of alcohol in the blood will decrease by approximately 0.015 per cent per hour. Thus, a person in the post-absorptive phase of alcohol intoxication who has a blood alcohol concentration of 0.10 per cent would be expected to have a blood alcohol concentration of 0.07 per cent two hours later. This kind of information is ordinarily taught in the physiological treatise and in conjunction with traffic laws and law enforcement.

33. Oxidation of alcohol begins in the:

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
a. I don't know	1	2.5	439	23	21	25
b. Brain			141	7	5	9
c. Stomach	5	12.5	293	16	16	15
d. Kidneys	3	7.5	136	7	9	6
e. Blood vessels	5	12.5	364	19	18	20
f. Liver	26	65	535	28	31	25

Discussion

Sixty-five per cent of the teachers and 28 per cent of the students answered the liver, which is correct. Twenty-three per cent of the students admitted they didn't know, while 16 per cent said the stomach, which seems to be a good, logical guess if one did not know.

Apparently most students lack physiological knowledge. One would expect the teachers to be better informed in this area, as well. Alcohol goes through the stomach and the first few feet of the small intestine unchanged, because it is a small molecule and does not need to be broken down (digested). It is carried directly to the liver via the portal vein, where oxidation begins.

34. Utah's rank with other states in per capita consumption of alcoholic beverages is:

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
a. I don't know	2	5	563	30	26	34
b. High	6	15	205	11	11	10
c. Above average	3	7.5	406	22	25	18
d. Average	10	25	272	14	12	16
e. Below average	16	40	364	19	20	19
f. Low	3	7.5	81	4	6	3

Discussion

Both teachers (8 per cent correct) and students (4 per cent correct) were poorly informed about alcohol consumption in their state. Utah ranks the lowest in per capita consumption of all the western states and is approximately 41st in the 50 states. Most of the states ranked lower than Utah are legally dry, and statistics do not accurately indicate the per capita consumption. Statistics are based on legal alcoholic beverages sales. Alcoholism rates are also low in Utah (46th).

35. What is antabuse?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
a. I don't know	21	55	1510	84	81	87
b. Tranquilizer used by alcoholics	2	5	45	3	2	2
c. Central nervous system stimulant used to keep people from drinking			48	3	3	2
d. Substance found in alcoholic beverages	1	3	40	2	4	1
e. Inert substance which makes one sick when combined with alcohol	10	26	87	5	5	5
f. Active drug which makes people not want alcoholic beverages	4	11	60	3	5	3

Discussion

Practically all students and most teachers were not very well informed about the treatment of alcoholism. Only five per cent of the students and 26 per cent of the teachers knew what antabuse is.

Antabuse is probably the most common deterrent used with alcoholics to facilitate treatment by the rehabilitation team, e.g., the psychiatrist, social workers, Alcoholics Anonymous, etc. Antabuse is an inert substance which makes one sick when combined with alcohol. This keeps the alcoholic sober so that he can be treated over a period of time, the only way recovery can be achieved. Such a common treatment of alcoholism should be better understood by the general public and this can be accomplished through our educational processes.

Miscellaneous unrelated questions

36. Blood alcohol concentration can be measured in three ways by taking a sample of --? (a. Blood was given on the questionnaire and answers were to be filled on the blanks b. and c.)

	Teachers	Students
b. Breath	35	1296
c. Urine	26	628

Discussion

The two correct answers are "breath" and "urine." Both can be analyzed in terms of the per cent concentration of alcohol in the blood. All of the teachers that responded answered correctly, but it is obvious that not all of the 40 teachers knew that urine samples will reveal the amount of alcohol in the blood, since only 26 responded with this answer. Of the 1972 students completing the questionnaire, 1296 said "breath" or some answer indicating that breath was involved, and 628 said "urine." An additional 156 responses had to do with an activity test such as coordination, reflexes, walking a line, balance, etc., and 53 responses indicated something to do with heart rate and pulse. A few other answers that did not make any sense were also given.

Most students and some teachers seem to need more information on how the alcohol in the blood is determined and that all of these measurements are very reliable. All methods are acceptable in most court cases when the blood alcohol concentration pertains to law enforcement.

37. Which of the following are warning signs that a person is in danger of being an alcoholic? (You may check more than one.)

	Teachers	Total students	Boys	Girls
a. Has blackouts or amnesia during drinking spree.	26	978	505	473
b. Tries to cover up his drinking habits.	36	1125	513	607
c. Drinks on social occasions quite often.	10	515	261	254
d. Feels guilty about his drinking habits although he does not admit it to anyone.	23	663	464	352
e. Sneaks drinks or drinks alone.	39	1591	762	829
f. Has a drink almost every evening before eating	10	663	319	344

Discussion

It is interesting to note that 10 teachers and 515 students thought that if an individual drinks quite often on social occasions (c) he is in danger of being an alcoholic. This is not one of the warning signs, nor is a drink almost every evening before eating (f) a warning sign of alcoholism. Ten teachers and 663 students labeled item "f" as a danger signal. Many social drinkers drink this way and never get into trouble. All of the other practices (items a, b, d, e) are warning signs that a person is heading toward alcoholism at a rapid rate. As a matter of fact, many of those who exhibit these symptoms are already there.

38. What is Alcoholics Anonymous?

The statements which follow are not worded exactly as each student responded, but according to the way most of the students answered or their apparent meaning. In other words, the statements simply represent the responses. The statements account for a total of 1861 answers and are listed according to the frequency in which they appeared. The breakdown is by male, female, and total responses Many of the statements are interrelated.

	Male	Female	Total
A group of former alcoholics trying to help present alcoholics.	198	201	399
An organization to help alcoholics.	169	191	360
A group of alcoholics which have banded together to solve their drinking problems.	123	88	221
A group of (past and present) alcoholics trying to recover.	102	108	210
Rehabilitation center. A place alcoholics go to be cured of their drinking problems.	62	96	158
A group of reformed alcoholics. Often they help each other with their problems or from ever taking another drink.	54	61	115
A group of alcoholics that meet together and discuss their problems. Group therapy.	48	46	94
An organization that helps alcoholics to help themselves.	20	34	54
An organization to help alcoholics. (MD, Social worker, well qualified persons.)	36	35	71

Discussion

The statements above may be compared with the information which follows.

Alcoholics Anonymous, or A.A., as it is more commonly called, is a banding together of alcoholics in order to achieve sobriety. Beginning in Akron, Ohio, on June 10, 1935, with two members, A.A. in 1962 had over 189,000 members in 10,070 groups in the United States, Canada, and overseas. If nonreported members are included, the total approximates 300,000.

A. A. 's basic philosophy is spiritual. Its operational framework is described in its Twelve Steps and Twelve Traditions. A. A. groups have two main goals in common with professional workers. They try to help alcoholics help themselves, and they make clear one fundamental theme: The alcoholic can never drink again in a controlled fashion.

Most students and teachers have a fairly good concept of the organization or "way of life," as alcoholics call it. However, it is apparent from these statements that they could use additional information.

39. Which of the following would be best able to help an alcoholic? Which second best? (Check only one in each of the two columns.)

	Teachers		Students		Boys		Girls	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Church leader	5	12	160	323	89	155	71	168
Psychiatrist	7	9	298	443	193	233	105	210
Physician (General practice)	2	10	151	269	96	127	55	142
Social worker	3	5	73	202	35	106	38	96
Member of the family	2	7	155	220	99	105	56	115
Friend	4	7	191	262	80	163	111	99
Member of Alcoholics Anonymous	26	5	1041	298	482	169	559	126
Other	1							

Discussion

Both teachers and students ranked a member of Alcoholics Anonymous as being best able to help an alcoholic. They were also quite consistent in ranking a psychiatrist, church leader, and friend in that order.

Alcoholics Anonymous has always had the best treatment record, but one must remember that alcoholics usually go there wanting help and this is really the best criterion as to whether or not one will be helped. The strength and support of the group, most of whom share the same problems, is tremendously important in A. A. They are quite successful. By way of training, the psychiatrist should be best able to help an alcoholic, but it should be kept in mind that the treatment of alcoholism requires a team approach, and all of these people can and should make a contribution to the alcoholic.

40. Is there an AA organization in this community or within ten miles?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
Yes	35	87.5	1289	70	69	72
No	4	10	101	5	4	7
Don't know	1	2.5	460	25	27	21

Discussion

It was originally intended that all schools surveyed would be within ten miles of an AA organization, but upon completion of the study, it was discovered that Bear River High School in Tremonton was not within this range. Only 19 students from that school answered "yes" and most of the others did not know.

There are A.A. organizations in most communities of any size, and apparently teachers and students were aware of this. Eighty-eight per cent of the teachers and 70 per cent of the students said "yes" to this question. It is interesting to note, however, that 25 per cent of the students did not know that there are A.A. groups in their communities.

41. Are there any alcoholic clinics or rehabilitation centers in Utah?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
Yes	38	97	1289	70	64	74
No	1	3	32	2	2	1
Don't know			527	28	34	25

Discussion

All but one teacher and 70 per cent of the students answered correctly. It is unfortunate that 30 per cent of the students did not know that alcoholism clinics and rehabilitation centers are available in Utah. It is also interesting to note that, of those who did answer "yes," 147 students said they did not know where they were located, and 16 just said hospitals. Of the cities where these centers are located, the following numbers of students and teachers mentioned the particular location: Salt Lake City, 684; University of Utah, 29; Provo, 132, Ogden, 193; Cedar City, 9; Utah State Hospital, Provo, 11; VA Hospital, 1.

There are five alcoholic rehabilitation centers in Utah: two in Salt Lake City, one each in Provo, Ogden, and Cedar City. There are alcoholism clinics in Salt Lake City (University of Utah Medical Center), Veteran's Administration Hospital (Salt Lake City), and some treatment is available at the Utah State Hospital in Provo. This is information that should be known and should be taught to the students in the state.

42. Before answering this questionnaire, had you ever heard of the Utah State Board on Alcoholism?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
Yes	31	82	508	27	28	27
No	7	18	1357	73	72	73

Discussion

Eighty-two per cent of the teachers and 27 per cent of the students had heard of the Utah State Board on Alcoholism. This is a state-supported organization and contributes more than any other agency to the prevention and treatment of alcoholism in Utah. Its people are in the foreground and background of almost every alcohol endeavor in this state. It should be utilized more and should be better known to all of the people in education in Utah.

43. Do you consider alcoholism to be a kind of illness?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
Yes	40	100	1654	92	88	95
No			98	5	8	3
Don't know			50	3	4	2

Discussion

Alcoholism is listed as an illness by the American Medical Association. All teachers and 92 per cent of the students agreed. Unfortunately, three per cent of the students did not know and five per cent said "no."

44. Do you think anything can be done about problem drinkers or alcoholics?

	Teachers	Per cent	Total students	Total Per cent	Boys Per cent	Girls Per cent
Yes	39	97.5	1733	94	93	95
No			54	3	4	2
Don't know	1	2.5	54	3	3	3

Discussion

Something can be done for problem drinkers, although it is difficult to get many to want help, and most teachers (all but one) and students (94 per cent) agreed.

Source and creditability of alcohol information

The following two questions pertain to the sources of information that students have about alcohol and alcoholism and the creditability of the information.

Answers in Part A were given by a total of 1459 students from five different schools. The data were tabulated in totals as each source of information was ranked 1, 2, 3, etc. Answers in Part B came from 513 students attending four different schools. These four schools did not rank the source of information 1, 2, 3. The total number of answers in each source was tabulated.

45. Where did you get most of your information about alcohol and alcoholism? If more than one answer, rank1, 2, 3, in the best order.

Part A

Parents or members of my family
1-135, 2-153, 3-95, 4-29, 5-6, 6-2, 7-1, 8-1

Friends
1-44, 2-113, 3-123, 4-18, 5-8, 6-3, 7-1, 8-3

Health classes
1-875, 2-199, 3-63, 4-11, 5-2, 6-2, 7-2

From drinking experience
1-58, 2-82, 3-76, 4-9, 5-7, 6-1, 7-0, 8-1, 9-1, 10-1

Physicians
1-10, 2-18, 3-17, 4-3, 5-5, 6-1, 7-2, 8-1, 9-3

Church leaders
1-48, 2-97, 3-126, 4-17, 5-4, 6-7, 7-2, 8-1

Newspapers
1-11, 2-65, 3-69, 4-34, 5-11, 6-6, 7-1, 8-1

Magazines
1-25, 2-139, 3-150, 4-40, 5-14, 6-4, 7-2, 8-1

Seminary or religion teachers
1-69, 2-247, 3-132, 4-22, 5-12, 6-6, 7-2, 8-0, 9-1

Other
1-32, 2-38, 3-33, 4-13, 5-3, 6-0, 7-0, 8-0, 9-0, 10-1

Part B

Parents or members of my family - 198

Friends - 152

Health classes - 357

From drinking experience - 91

Physicians - 24

Church leaders - 151

Newspapers - 100

Magazines - 156

Seminary or religion teachers - 211

Other - 69

Discussion

An examination of the data shows that "health classes" are the best source of information about alcohol and alcoholism. This appears to be followed in order by: Parents or members of my family, Seminary or religion teachers, magazines, friends, church leaders, and drinking experiences. When Seminary or religion teachers and church leaders are combined and called a religious teaching source of information, they are ranked second to the health classes. The strong influence of the Church of Jesus Christ of Latter-Day Saints (Mormon) in Utah and its emphasis upon total abstinence from alcohol probably contributes to a different situation than would be found in most other states. These data strongly indicate that health teachers and religion leaders and teachers should have a good background in alcohol studies.

The 40 teachers were asked: "What specific alcohol studies training have you had?"

The total number of times each category was checked is listed. It should be noted that some teachers listed more than one source of training.

a. None - 6

b. Formal class on alcohol and alcoholism at Utah State University - 9

c. Formal class on alcohol and alcoholism at a university other than USU - 7

d. University of Utah School of Alcohol Studies - 11

e. Special institute or workshop on alcohol and alcoholism - 9

f. A unit in a health course at a university - 21

g. Other - 6

Seminars - 1 ; Self-study - 3; Studied chemistry of alcohol - 1
Work in psychiatric ward of hospital in summer - 1

Slightly more than one-half of the teachers had had some alcohol training in a health course and some had had formal classes on alcohol and alcoholism at a university. The Utah School of Alcohol Studies showed 11 teachers as graduates. More formal training seems to be needed by teachers of this subject as evidenced by some answers to questions and their backgrounds of training.

46. How reliable do you consider the two best sources of your information about alcoholism? (Check only one)

	Teachers	Per cent	Students	Per cent
Extremely reliable	13	32	858	46
Good reliability	15	36	645	34
Average reliability	11	27	274	15
Fair reliability	2	5	66	3
Poor reliability			28	2

The students generally seem to think their information is more reliable than do the teachers. In both cases, the creditability of their sources of information is well above average reliability. This seems to indicate that the students have extreme confidence in their health and religious training, but more teachers obviously could profit by additional formal training in the area of alcohol studies. It is readily obtainable with scholarships available in Utah.

TEACHERS' ATTITUDES TOWARD ALCOHOL AND THEIR RESPONSES TO SELECTED ALCOHOL KNOWLEDGE QUESTIONS

The health and driver education teachers from all of the schools completed a special questionnaire designed for them in addition to answering the same knowledge questionnaire as the students. Thirteen true-false questions were included in an attempt to determine some attitudes the teachers might have about alcohol and alcoholism. The answers to some of these questions were compared to responses on selected knowledge questions to ascertain the relationship between teachers' feelings and their knowledge about alcohol and alcoholism.

Attitude Question: "As an employer of a large number of people, you would fire an employee who became an alcoholic while working for you before trying to do something for him."

Thirty-three teachers marked the statement false, indicating that they would help an employee; four were undecided, and seven said they would fire an employee who became an alcoholic before trying to do something for him. On the knowledge questionnaire, when asked if "A person is delinquent if he or she drinks," 33 teachers checked the statement false, and seven said it was true. Three of the seven indicating "true" also said they would fire an employee if he became an alcoholic. These three teachers showed a negative attitude toward people who drink, since they would "fire an employee" and they said, "A person is delinquent if he drinks." The other four who thought a person was delinquent if he drank indicated they were either undecided or that they would help an employee who became an alcoholic.

Every teacher indicated that "An alcoholic can be helped and is worth helping." But when a personal obligation was involved, some teachers' attitudes changed - they agreed that alcoholics can be helped and are worth helping, but as an employer they would fire the individual before trying to do something for him.

Attitude Question: "Most alcoholics themselves could control their drinking if only they wanted to."

Thirty-seven teachers said the statement was false; five answered it true; and one was undecided. Most of the definitions of an alcoholic indicate that the alcoholic is a person who drinks so much and so often that he gets into trouble physically, economically, or socially, and still continues to drink. This person has lost control because he continues to drink in spite of his problems.

When asked on the knowledge questionnaire if "Alcohol is habit forming," 28 teachers said it was, 10 indicated that statement was false, and two were undecided. Alcohol is not habit forming in the usual description of the term. If it were, approximately 90,000,000 United States citizens would have developed the habit and be addicted.

Four of the five teachers, above, who indicated that "The alcoholic could control his drinking if only he wanted to" also indicated that "Alcohol is habit forming." If one thought an alcoholic could control his drinking, it is not consistent to think alcohol is habit forming.

Drinkers become alcoholics when they lose control of their drinking - and alcohol as defined in this context is not habit forming.

Attitude Question: "Please check how you feel about adults drinking the following beverages."

	Approve	Disapprove	No opinion
Beer	7	23	11
Wine	7	26	9
Whiskey	7	28	7

The same teachers who approved adults drinking beer also approved adults drinking wine and whiskey. More teachers disapproved drinking wine than beer and more disapproved drinking whiskey than wine. The higher the alcohol content of the beverage the greater was the disapproval of drinking the beverage.

In order to assess some of the teachers' knowledge of alcohol and alcoholism, the following question was asked: "Is the particular kind of beverage a person drinks a factor in whether or not he or she becomes an alcoholic?" Thirty-three teachers answered it correctly (false), one was undecided, and five said yes, that a particular beverage was a factor in making a person an alcoholic. Four of the five teachers who indicated that the kind of beverage was a factor in developing alcoholism also suggested that distilled beverages (whiskey, vodka, rum, etc.) were the beverages that contributed most.

It would be recognized that the intoxication substance in all alcoholic beverages is the same, ethyl alcohol. Only one teacher who approved adults drinking indicated that he believed the type of beverage was not a factor in becoming an alcoholic.

Attitude Question: "Alcoholics should be given as much consideration and the same quality of treatment as people with cancer or polio."

Thirty-five teachers agreed that the alcoholic should be given the same quality of treatment; three indicated the alcoholic should not be given this consideration, and six were undecided.

All 43 teachers answering the above question agreed that "Alcoholism is classed as a disease by the American Medical Association." It is considered by many as the third major health problem in the United States, ranking only behind cancer and heart disease. Prior to 1952, the medical profession did not officially recognize it as a disease.

When the teachers were asked "Do you consider alcoholism to be a kind of illness?", every teacher answered in the affirmative. Each apparently knew that the American Medical Association considers alcoholism as a disease and each one also considered it an illness. Yet, three teachers indicated that the alcoholic should not be given the same consideration as patients with cancer or polio and six more were undecided. This is an indication of very inconsistent thinking, and of the great emotional involvement that some people have with the subject of alcohol.

Attitude Question: "The problem of alcoholism could probably be solved most successfully by eliminating alcoholic beverages."

The correct answer (false) was given by 35 teachers, two were undecided and seven indicated that elimination of alcoholic beverages would solve the problem of alcoholism.

On the knowledge questionnaire, only one teacher answered that "Rehabilitation and recovery of the alcoholic demands total abstinence from alcoholic beverages," was a false statement. This person also said that elimination of alcoholic beverages could solve the problem of alcoholism. The others who agreed alcohol elimination was not a good way to solve the problem understood that rehabilitation and recovery demand total abstinence. They also answered that prohibition was not the correct approach in eradicating the problem.

No one knows the exact cause of alcoholism, but it seems to be related to inadequate adjustment to one's environment (personality) and/or to some physiological envolvement. Consequently, the elimination of alcohol will not solve all of these problems. Yet, the recovered alcoholic cannot return to social drinking because the process of becoming alcoholic seems to be irreversible in most cases. This accounts for the necessity of total abstinence on the part of the alcoholic.

Attitude Question: "Most alcoholics are worth trying to help."

All 44 teachers completing this question answered in the affirmative. On the knowledge questionnaire, they were asked to check "Which one of the following would be best able to help the alcoholic?" Answers were:

	Best	Second Best
Church leaders	5	12
Psychiatrist	7	9
Physician (general	2	10
Social worker	3	5
Members of family	2	7
Friend	4	7
Member of AA	26	5
Other	1 (all of the above)	

The treatment of alcoholism has at least three main objectives (a) to help the alcoholic recognize and accept the need for treatment, (b) to help him stop drinking completely and (c) to make it possible to be reinstated and maintained in his family, job, and community. Treatment may be divided into categories such as medical, psychiatric, or spiritual, but in most cases several types of treatment, not just one, are needed. It is possible that members of Alcoholics Anonymous could supply these therapies, but not likely in all cases.

Twenty-six alcohol education teachers said that a member of Alcoholics Anonymous would best be able to help, and a majority thought either the church leaders or a psychiatrist would be second best in helping the alcoholic. Treatment is ordinarily a long, expensive, and difficult process. To be effective, it requires the cooperation of a team, composed of the patient, his family, associates, and specialists in many theraputic ways.

Most of the teachers seemed to reflect the feeling that fellow alcoholics are the best able to help other alcoholics, which appears to be true, but there is evidence by the few who said "friend," "member of family," "social worker," and "general physician" of either not knowing much about the treatment of alcoholism or reflecting some personal feelings.

Attitude Question. "The condition of alcoholism should rightly be looked upon as a condition of sin."

Forty teachers indicated that this statement was false and three said it was true. The three who considered alcoholism a condition of sin, also said they felt alcoholism was a kind of illness (along with all of the other teachers). Two of these three also indicated that they felt "A person was delinquent if he or she drank." This thinking is obviously very inconsistent.

One of the teachers who looked upon alcoholism as a condition of sin and felt one is delinquent if he drinks, indicated earlier in the questionnaire that he approved of adults drinking. This is even greater inconsistency.

Another teacher who looked upon the condition of alcoholism as a sin and said a person is delinquent if he drinks also stated that he would fire an employee if he became an alcoholic. He was at least consistently negative. This same teacher indicated that he felt "A respectable family background, good education, and success in business would keep a drinker from becoming an alcoholic," and "A larger percentage of alcoholics are mentally defective," yet he, along with all of the other teachers, agreed that alcoholism was a disease. Not only was he consistently negative, but apparently uninformed about alcoholism. It is highly questionable whether these people should be allowed to teach in this area of instruction.

THE RELATIONSHIP BETWEEN TEACHER AND STUDENT ANSWERS TO QUESTIONS ABOUT ALCOHOL AND ALCOHOLISM

Limitations inherent in the available data made it impossible to derive broadly applicable conclusions. Nevertheless, the potential value for future teaching programs about alcohol and alcoholism seemed to warrant an attempt to evaluate possible relationships between teacher and student responses in certain schools on some of the knowledge questions. The results of that attempt are presented here.

Question: "In your opinion, people who have drinking problems come from what walks of life or social groups in the community?"

All nine teachers from school 'I' were correct when they said that problem drinkers come from all walks of life and social groups. Ninety-two per cent of the seniors at this school also answered correctly. When every teacher in a school is well informed on a particular fact and 92 per cent of their students also are well informed, it appears that the teachers are doing an excellent job, or that the information is readily available elsewhere. We hope the information is being disseminated to the students by the teachers.

At school 'F' three of the five health teachers answered the question correctly. One of the incorrect answers said problem drinkers come from labor classes, and the other cited professional groups as being the main source. Eighty-five per cent of their senior class answered correctly. A smaller percentage of both students and teachers in school 'F' knew the correct answer than in school 'I'. There could be a significant relationship, although this cannot be accurately ascertained at this time.

Two of three teachers at school 'D' checked the correct answer, and one said problem drinkers come from low levels of society. Only 75 per cent of the students of this school said that problem drinkers come from all walks of life and social groups.

These three examples seem to indicate some influence of alcohol studies teaching since the students said their best sources of information were health classes, and that their sources had good reliability of alcohol and alcoholism knowledge.

Question: "What per cent of alcoholics are of the skid row type?"
(a) I don't know; (b) 5; (c) 20; (d) 50; (e) 75; (f) 90.

Seven of the nine teachers at school 'I' answered correctly that "five per cent of all alcoholics are of the skid row type." Fifty per cent of the students from the same school indicated they didn't know; 34 per cent guessed the wrong answer, and only 16 per cent answered correctly. Apparently the students are not being taught the information possessed by the large proportion of the teachers.

At school 'C' three teachers said 20 per cent of all alcoholics are the skid row type, one said "I don't know," and only one answered correctly. Fifty-seven per cent of their students indicated they didn't know, 29 per cent guessed wrong, and 14 per cent answered the question correctly. Both students and teachers at this school lack adequate information on this subject.

Question: "Most laws say you are drunk when blood alcohol concentration is above what per cent?"

All five teachers at school 'C' said 0.15 per cent, which is correct. Yet, only twnety-one per cent of their students knew this fact.

All of the school 'D' teachers gave the correct answer; yet only 22 per cent of their students answered correctly.

Neither teacher at school 'E' gave the correct answer; yet, 33 per cent of their students answered correctly. Obviously these students were taught by other "teachers" or were informed in spite of the two present teachers.

Question: "Utah laws permit the use of alcohol by all persons choosing to do so after attaining the age of 18."

This statement was marked "false" by all eight health teachers from school 'I'. Ninety-two per cent of their students also answered correctly.

At school 'B' three of five teachers answered correctly, and 75 per cent of their students gave the correct answer.

The inevitable differences from school to school may not always be poorly informed teachers. In this study not all teachers of alcohol studies completed the question, and different teachers rarely teach the same things in a given course. In addition, other sources of information besides the health and driver education teachers are considerations, even though this is the source of information listed most by the students.

Question: "It is unlawful to have in an automobile in Utah a bottle of distilled liquor which has had the seal broken."

Both teachers at school 'E' answered correctly (true). Seventy-nine per cent of their students were also cognizant of the correct answer. At school 'B' four of the five teachers said true, and only 59 per cent of their students answered correctly.

It is difficult to assess the relationship between teachers and students knowledge, even when the information is taught. Not all alcohol education teachers were examined at school 'E', which makes the relationship even more difficult to establish. Yet, teachers have the responsibility to teach the subject if they know it, and students should reflect the teaching if it is being done.

Question: "The alcohol used for all alcoholic beverages is: (a) I don't know, (b) Methyl, (c) Amyl, (d) Propyl, (e) Ethyl."

Three teachers at school 'H' said ethyl alcohol, which is correct. The other two teachers indicated they didn't know. Thirty-two per cent of the seniors at this school answered correctly. Only one teacher of three at school 'C' said ethyl alcohol, and only six per cent of the students were correct. There appears to be some relationship between teachers' and students' lack of knowledge on this question.

Question: "100 proof" on a distilled beverage means what per cent is alcohol? (a) I don't know, (b) 25, (c) 50, (d) 75, (e) 100."

Both teachers at school 'E' gave the correct answer (50 per cent). Forty-five per cent of their students answered correctly.

At school 'A' one teacher answered correctly and the other two teachers indicated they did not know. Thirty-nine per cent of their students gave the correct answer.

A larger percentage of students at school 'E' were correct than at school 'A'. There seems to be a relationship to the teachers' knowledge or lack of it.

Question: "The entrance rate of alcohol into the blood stream is affected by food in the stomach.

Thirty-six of the 40 teachers answering the question said "true," which is correct. One teacher from each of schools A, C and H answered incorrectly. Sixty-two per cent of the students in school 'A', 53 per cent in school 'C', and 64 per cent in school 'H' answered correctly. All of the teachers at schools 'I' and 'F' answered correctly, yet there was a 25 per cent difference in the percentage of correct answers given at the two schools. The great discrepancy from school to school appears to be a chance difference. Yet, if teachers were effective in their teaching of the facts, this could conceivably be eliminated.

Question: "Alcohol is a stimulant after it gets into the bllod stream."

Three teachers, one each from schools 'D'. 'F'. and 'I' answered incorrectly. All others were correct (false). The percentage of students answering correctly from school to school was very inconsistent. This, again, indicates the lack of effective teaching, since in some schools where teachers were well informed, students answered the question poorly, and in other schools where some of the teachers were poorly informed, the students were quite accurate with their answers, e. g., in school 'A', 46 per cent of the students and 100 per cent of the teachers were correct. At school 'F', 56 per cent of the students were correct, but only four of the five teachers (80 per cent) answered correctly.

Question: "Drinking alcoholic beverages increases body temperature."

Four of the five teachers at school 'B' said "false." which is correct. Thirty-five per cent of their seniors answered correctly.

At school 'A' one of three teachers answered correctly. Only 22 per cent of their seniors gave the correct answer.

From 22 to 35 per cent of the various senior classes answered this statement correctly. Apparently, teachers are not teaching this information, and in some cases, they are poorly informed themselves.

Question: "The alcohol in alcoholic beverages destroys cells and tissues in the body."

Every teacher at school 'B' gave the right answer (false). Yet, only 33 per cent of their students answered false.

Four of school 'H's five teachers said false. Thirty-five per cent of their students answered correctly also.

The teachers in 'B' and 'H' schools knew that alcohol does not destroy the cells and tissues of the body, yet most of their students were poorly informed.

All three of school 'A's teachers answered incorrectly, and 72 per cent of their students also were incorrect. Teachers and students were obviously poorly informed on this question.

Question: "For young people the most immediate danger in drinking is intoxication and its subsequent dangers."

Eighty-four per cent of the seniors and four of the five teachers at school 'H' gave the correct true answer. Three of five teachers at school 'B' said "true." Seventy per cent of their seniors said "true."

Question: Alcoholism is classed as a disease by the American Medical Association."

Every teacher involved in the study answered correctly (true). All schools had high percentages os students giving the correct answer, but there were differences from school to school. Only 78 per cent at school 'D' were correct, while 96 per cent of the school 'A' seniors recognized it to be true.

Every teacher considered alcoholism a disease and knew that the American Medical Association classed it as such. A great percentage of the students considered it a disease, but fewer students indicated they knew the American Medical Association classed it as such. The teaching should be better in some of the schools.

Question: "A physician can tell a beginning drinker whether or not he will become an alcoholic."

Only one teacher of nine at school 'I' was incorrect. Seventy-seven per cent of this school's students were correct in their answers. Two of three teachers at school 'D' answered correctly, while 90 per cent of their students gave the right answer.

Apparently the students at school 'D' understood this information better than those at school 'I' even though a greater percentage of their teachers did not.

Question: "A person becomes an alcoholic when he or she develops an emotional and physical dependence on alcohol."

Only three of the total teacher group answered incorrectly (from schools 'B', 'D', and 'H'). Eighty-nine per cent of school 'B's seniors, 96 per cent from school 'H', and 82 per cent from school 'C' answered correctly.

Even though 'B', 'D', and 'H' schools had teachers who did not recognize this definition, their seniors were as high or higher percentage-wise than those high schools where all teachers were correct.

Question: "Rehabilitation and recovery of the alcoholic demands total abstinence from alcoholic beverages."

All but one of the 40 teachers (from school 'A') said "true." Seventy-eight per cent of school 'A's seniors recognized this fact. Sixty-three per cent of school 'D's seniors answered "true." At school 'I' 92 per cent of the seniors answered correctly. The knowledge of the teachers seems to have little relationship to the knowledge of the students on this question.

Question: "A fairly large percentage of alcoholics are mentally defective."

Two of the three teachers at school 'D' said "true," which is incorrect. Fifty-six per cent of their students answered correctly. At school 'C' three teachers answered correctly, and two teachers were incorrect in their response. Only 43 per cent of their students gave the correct answer.

Each teacher at school 'A' marked a different answer. One indicated that a large percentage of alcoholics were mentally defective, one claimed they were not, and the other questioned the statement. Forty-six per cent of their students answered correctly. There appears to be some relationship between teachers' and students' lack of knowledge on this question.

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